

STATE HIGHER EDUCATION FINANCE

FY 2012



SHEEO



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State Higher Education Executive Officers (SHEEO) is a nonprofit, nationwide association of the chief executive officers serving statewide coordinating, policy and governing boards for postsecondary education. The mission of SHEEO is to assist its members and the states in developing and sustaining excellent systems of higher education. SHEEO pursues its mission by organizing regular professional development meetings for its members and their senior staff; maintaining regular systems of communication among the professional staffs of member agencies; serving as a liaison between the states and the federal government; studying higher education policy issues and state activities and publishing reports to inform the field; and implementing projects to enhance the capacity of the states and SHEEO agencies to improve higher education.

An electronic version of this report, State Higher Education Finance FY 2012, and numerous supplementary tables containing extensive state-level data are available at www.sheeo.org. These may be freely used with appropriate attribution and citation. In addition, core data and derived variables used in the SHEF study for fiscal years 1992 through 2012 are available on the SHEEO website and also through the National Center for Higher Education Management Systems (NCHEMS)-sponsored Information Center for State Higher Education Policymaking and Analysis website at www.higheredinfo.org.



S T A T E **H** I G H E R **E** D U C A T I O N **F** I N A N C E

FY 2012

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SHEEO

Acknowledgements

We are pleased to present the tenth annual SHEEO State Higher Education Finance (SHEF) study of state support for higher education.

SHEF builds on and augments the surveys of various federal agencies. The higher education finance surveys and reports produced by the National Center for Education Statistics in the U.S. Department of Education provide extensive institution-level data, which can be aggregated to the sector, state, and national levels. The Bureau of Economic Analysis, the Bureau of Labor Statistics, and the U.S. Census Bureau are additional economic and demographic data sources which provide context on aspects of higher education financing and operations. Together, these federal sources provide the foundation and reference points for our collective understanding of how we finance higher education and for what purposes.

Over the years, a community of policy analysts has utilized federal surveys, collected supplemental data, and performed a wide range of analytical studies to inform state-level policy and decisions. This report builds directly on a twenty-five year effort by Kent Halstead, an analyst and scholar of state policy for higher education, who conceptualized and implemented a report on state finance for higher education and created a file of state financial data that extends from the early 1970s to the late 1990s. Halstead's data were frequently used in the states as a resource to guide policy decisions. While he never described it as such, his survey became widely known as the "Halstead Finance Survey."

SHEF also draws on the surveys and analytical tools provided by the *Grapevine* survey, established in 1962 by M.M. Chambers and maintained by his successors, Edward Hines and, currently, James Palmer, at Illinois State University. In the summer of 2010, SHEEO and Illinois State University aligned the *Grapevine* and SHEF data collections into one. Since then, the combined State Support for Higher Education Database (SSDB) data collection has simplified and aligned data collection procedures, reduced the burden placed on state offices, and created a more timely and comprehensive picture of state fiscal support for higher education. We are grateful for the leadership of James Palmer in making this effort possible.

SHEEO is deeply indebted to the staff of state higher education agencies who provide the state-level data essential for the preparation of this report. Their names and organizations are listed in Appendix C. We also appreciate the input and suggestions from many state higher education finance officers (SHEFOs) and others who have contributed much to the development of this report. Andrew Carlson was the principal analyst for the State Higher Education Finance Study this year, building on the foundation laid since 2003 by a talented group of other SHEEO staff. Katie Zaback, Tanya Garcia and Chris Ott made important contributions to this year's study, and Hans L'Orange and Gloria Auer gave the narrative their expert editorial touches. I am grateful for their dedicated professional work.

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Paul E. Lingenfelter
President
State Higher Education Executive Officers

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Introduction

Financing higher education requires political leaders, policymakers, and educators to address broad public policy questions, including:

- What levels of state funding to colleges and universities are necessary to maintain the economic and social well-being of the American people?
- How can states balance the need for higher education support with the needs of other major state programs given limited resources and budgetary pressures?
- What tuition levels are appropriate given the costs of higher education, its benefits to individuals, and the desirability of encouraging participation and improving degree and certificate attainment?
- What level of student financial assistance is necessary to provide meaningful educational opportunities to traditionally underserved students and students from low- and moderate-income families?
- How might colleges and universities use available resources to increase productivity without impairing the quality of services to students?

The State Higher Education Finance (SHEF) report is produced annually by the State Higher Education Executive Officers (SHEEO) to broaden understanding of the context and consequences of multiple decisions made every year in each of these areas. No single report can provide definitive answers to such broad and fundamental questions of public policy, but the SHEF report provides information to help inform such decisions. The report includes:

- An **Overview and Highlights** of national trends and the current status of state funding for higher education;
- An explanation of the **Measures, Methods, and Analytical Tools** used in the report;
- A description of the **Revenue Sources and Uses** for higher education, including state tax and non-tax revenues, local tax support, tuition revenue, and the proportion of this funding available for general educational support;
- An analysis of **National Trends in Enrollment and Revenue**, in particular, changes over time in the public resources available for general operating support;
- **Interstate Comparisons—Making Sense of Many Variables**, using tables, charts, and graphs to compare data among states and over time; and
- **Indicators of Relative State Wealth, Tax Effort, and Allocations for Higher Education**, along with ways to take these factors into account when making interstate comparisons.

The SHEF report provides the earliest possible review of state and local support, tuition revenue, and enrollment trends for the most recent fiscal year.

Please note: Generally, years referenced in the body of this publication refer to state fiscal years, which commonly start July 1 and run through June 30 of the following calendar year. For example, FY 2012 includes July 2011 through June 2012. All enrollments are full-time equivalent for an academic year (including summer term). National averages are calculated using the sum of all of the states. For example, the national average per FTE expenditure is calculated as the total of all states' expenditures divided by the total of all states' FTEs.

Overview and Highlights

National Trends in State Funding for Higher Education

State and local government financial commitment to higher education has increased substantially over the past twenty-five years. In 1987, state and local governments combined provided \$33.3 billion in direct support for general operating expenses of public and independent higher education institutions. This investment increased to \$50.3 billion in 1997, \$82.7 billion in 2007, and \$88.8 billion by 2008 (the high point in national aggregate funding).

A recession beginning in 2008 dramatically reduced state revenue and ended the growth in state and local support achieved between 2004 and 2008. In response, the American Recovery and Reinvestment Act (ARRA), approved February 17, 2009, provided funding to stabilize state support for education (among other interventions) to achieve economic recovery. With the approval of the Secretary of Education, funds allocated to the states by Congress could be used to supplement state and local funding for education in 2009, 2010, and 2011.

In 2011, 31 states provided ARRA funding to their higher education systems totaling \$2.8 billion, helping to offset reductions in state and local support since 2008. State and local support in 2011 including ARRA funds totaled \$87.4 billion, actually showing a slight percent increase in funding for higher education over 2010 (although still below 2008 and 2009). The stability in support for higher education is an indicator that ARRA funding has served its purpose in minimizing the negative effects of the economic recession on higher education.¹ By 2012, however, these ARRA funds had largely been spent and state and local support for higher education fell more than 7 percent to \$81.2 billion.

The decline in 2012 due to the expiration of ARRA funding (the “fiscal cliff”) was widely and accurately projected, based on a fear that the recovery of state economies and revenues from the 2008 recession would be sluggish. Appropriations for 2013 (see Appendix A), with increases in 3 out of 5 states, suggest a recovery is likely underway, but the national total for state higher education appropriations is still down 0.2 percent. A 2013 decrease of 5.7 percent in California made a significant dent in the national totals.

In addition to state and local revenues, public institutions collected net tuition revenue of \$59.9 billion in 2012, for a total of about \$141.1 billion available to support the general operating expenses of higher education (see *Figures 1 and 2*).

The share of total revenue for general operating expenses for higher education originating from net tuition revenue showed an increase from 31.6 percent in 2008 to 38.5 percent in 2011 and 42.5 percent in 2012. Tuition revenue collected by independent (private, not-for-profit) and for-profit institutions is not included in this total.

Of the \$81.2 billion in state and local support during 2012, 76.5 percent was allocated to the general operating expenses of public higher education. Special purpose or restricted state appropriations for research, agricultural extension, and medical education accounted for another 12.6 percent of the total. The percent of total support allocated for financial aid to students attending public institutions increased to 7.4 percent in 2012. This is up from 5.6 percent in 2007 and shows the efforts states made to maintain critical aid programs during the downturn. The remaining 3.5 percent supported students attending independent institutions, independent institutions’ operating expenses, and non-credit and continuing education expenditures.

¹ “State and local support” in SHEF is generally meant to include funds allocated to states by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA) and funds from the Education Stabilization Fund and the Other Government Services Fund used to fill shortfalls in state support for general operating expenses at public colleges and universities.

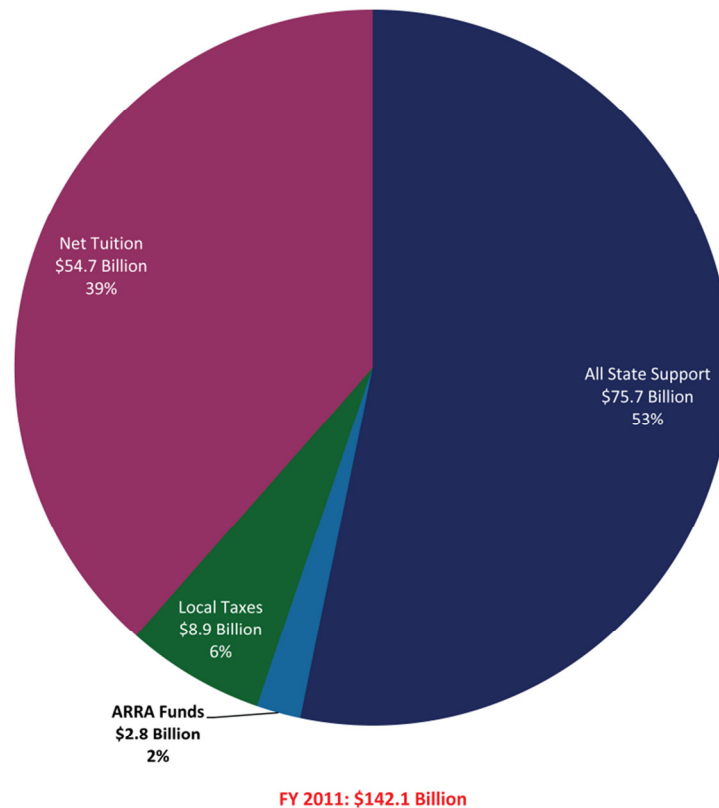
Analysis of the data indicates that constant (adjusted for the impact of inflation over time) dollar per student state and local funding for public colleges and universities continued to decrease between 2011 and 2012. State and local support (excluding appropriations for research, agricultural extension, and medical education) per full-time-equivalent student was \$6,483 in 2011, a \$246 constant dollar (or 3.7 percent) decrease from 2010, and the lowest in the last 25 years. This trend continued in 2012 with state and local support per FTE at \$5,896, an additional 9.0 percent decrease. In 2010 and 2011, this decrease in per student support, despite relatively stable state support, was driven by an increase in enrollment of more than 8 percent in the two years between 2009 and 2011. In 2012, enrollment growth stabilized, and the decrease is due to a reduction in overall support.

Higher education has historically experienced large increases in enrollment during times of economic recession, and this tendency has been accentuated by the growing economic importance of postsecondary education. Nationally, FTE enrollment grew 5.7 percent between 2009 and 2010, 2.5 percent between 2010 and 2011, before declining by 0.7 percent in 2012. Since 2002, enrollment has grown 28 percent.

Highlights of the SHEF report provided below illustrate the long-term patterns, shorter-term changes, and state-level variables affecting the resources available to support higher education between 1987 and 2012. These and other factors that shape higher education funding are examined in more detail in the sections of the full report that follows.

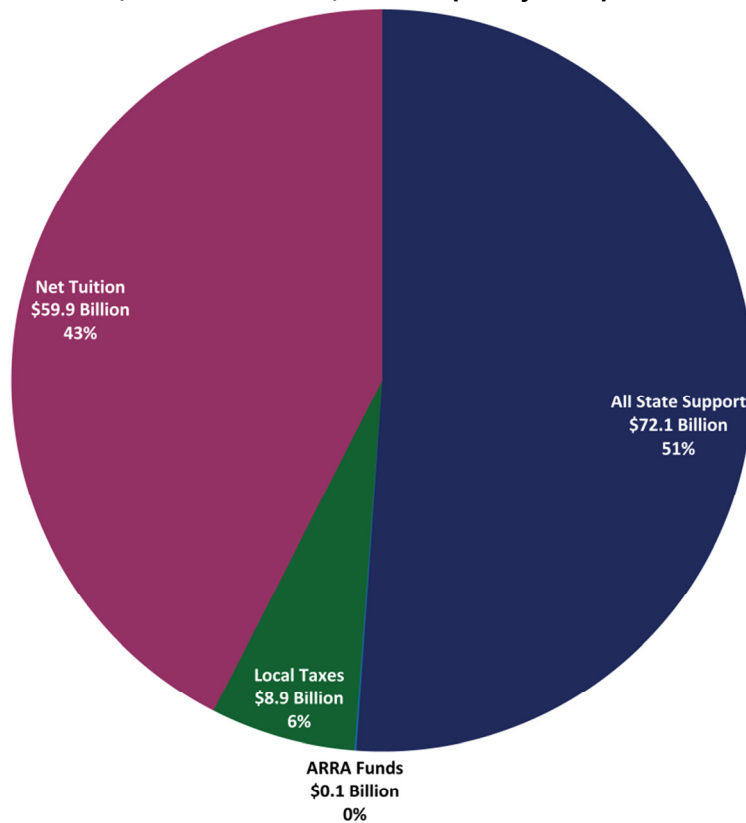
Figure 1

**State, Local, and Net Tuition Revenue Supporting General Operating Expenses of Higher Education
U.S., Fiscal Year 2011, Current (unadjusted) Dollars**



Source: State Higher Education Executive Officers

Figure 2
State, Local, and Net Tuition Revenue Supporting General Operating Expenses of Higher Education
U.S., Fiscal Year 2012, Current (unadjusted) Dollars



FY 2012: \$141.1 Billion

Source: State Higher Education Executive Officers

1. From 1987 to 2012, FTE enrollment at public institutions of higher education increased from 7.1 million to 11.5 million. The all time peak enrollment occurred in 2011, slightly (0.7 percent) higher than in 2012.
2. Educational appropriations per FTE (defined to include state and local support for general higher education operations) fell to \$5,896 in 2012, a 25-year low in inflation-adjusted terms. Annual educational appropriations from 1987 through 2012 are displayed in *Figure 3*.
3. Tuition charges are the other primary source of revenue used to support public higher education (excluding research grants and revenue from independent operations). Net tuition revenue typically grows faster when state and local revenues fails to keep pace with enrollment growth and inflation, both because more students pay tuition and the institutions tend to charge more to compensate for declining public revenue per student.
4. Partially offsetting decreased state and local support, constant (adjusted) dollar net tuition per FTE increased annually at 5.0 percent between 2009 and 2011 and then by 8.3 percent in 2012.
5. Constant dollar total educational revenue (as displayed in *Figure 3*) per FTE declined from the late 1980s to the early 1990s, from \$11,125 in 1988 to \$10,587 in 1993. Thereafter, total educational revenue per FTE grew steadily from 1994 to 2001, reaching \$12,267. Total revenue per FTE then fell sharply (about 10 percent) from 2001 to 2004 (to \$11,067), rebounded to \$12,067 by 2008, and has since dropped to \$11,085 in 2012. Rapid enrollment growth and, in 2012, reductions in state support, are the most significant factors driving these trends.

6. The student share of total educational revenue to support public higher education operations has grown steadily since the early 1980s (see *Figure 4*) and by FY 2012, net tuition made up 47 percent of total educational revenue.

Changes Over the Past Five Years in the States

Total public higher education enrollment has increased substantially in recent years. Following dramatic increases nationally from 2002 through 2005, FTE enrollment at public institutions of higher education slowed somewhat, only to increase sharply again between 2007 and 2011, tapering off slightly in 2012. These enrollment trends significantly affected the per student revenue available to support higher education. Across states both enrollment and appropriations growth varied widely from the national average.

7. Nationally, FTE enrollment grew 15.6 percent in the past five years. All fifty states have experienced increases in FTE enrollment since 2007, and total public FTE enrollment increased by 34.2 percent from 2000 to 2012. Although national enrollment declined slightly between 2011 and 2012 (by 78,000, or 0.7 percent), most of this decline was in California where enrollments fell by 57,000. The enrollment decline in California likely reflects the effects of both higher fees and enrollment caps due to decreases in state appropriations.
8. Per FTE constant dollar educational appropriations increased in two states between 2007 and 2012. Across all 50 states, the change in educational appropriations per FTE varied from -50.7 percent to +30.7 percent.
9. Even after adding revenue from tuition increases, constant dollar educational revenue per FTE (excluding net tuition revenue used for capital or debt service) decreased 8.0 percent on average between 2007 and 2012, with 36 of the states experiencing declines in this measure.

Wealth, Taxes, and Allocations for Higher Education

Each state's unique combination of policy choices and fiscal and environmental conditions provides the context within which higher education funding occurs. The national trends outlined below give a sense of general conditions, but individual state contexts vary widely. The available data are from 2000 to 2010, lagging two years behind appropriations data reported elsewhere in this report. The effects of the recession beginning in 2008 on state and local revenues are evident in these data.

11. Total taxable resources per capita, a statistic that captures state income and wealth, peaked at \$53,612 in 2007, then decreased to \$50,051 in current (not adjusted for inflation) dollars in 2009, a two-year decrease of 6.6 percent. In 2010, total taxable resources rebounded slightly to \$50,974. Meanwhile, per capita state and local tax revenues decreased \$40, or 1.0 percent.
12. Over the ten-year period from 2000 to 2010, total taxable resources per capita increased 32.7 percent, while the effective tax rate increased by 4.0 percent.
13. The proportion of state and local tax revenues allocated to higher education declined slightly over the decade from 7.2 percent in 2000 to 6.8 percent in 2010.

Economic Recessions and Higher Education

During periods of economic recession, enrollment demand tends to grow more rapidly at a time when state revenue falls or fails to grow. This tendency exacerbates the effects of a parallel tendency (as noted by Harold Hovey in 1999) for higher education funding to become the "balance wheel" for state finance, declining faster than the rest of the state budget in recessions, and then growing faster when state revenue recovers.

14. Over the past 25 years, state and local support for higher education has twice recovered following major economic recessions to levels that exceeded previous support.
15. The pattern of recovery following the 2001 recession began for a third time in 2007, but this recovery was cut short by the onset of the recession that started in 2008. Constant dollar per student state support began another downturn, rather than continuing its return to the levels reached in 1999 through 2001.
16. To counter the impact of the current recession, Congress passed the American Recovery and Reinvestment Act. States could use a portion of these funds for operating budget shortfalls in public colleges and universities in order to mitigate tuition increases and faculty and staff layoffs in fiscal years 2009, 2010, and 2011. In FY 2009, 15 states used ARRA funds to cover operational shortfalls, accounting for 3 percent of total state and local support for higher education. In 2010, over 5 percent of total state and local support was from ARRA funds, which were used by 43 states. Finally, in 2011 both the number of states using ARRA funds and the amount of ARRA funding declined from the previous year; 31 states used \$2.8 billion in ARRA funds, roughly 3 percent of the total state and local support. By 2012, ARRA funds had mostly been spent; however, a residual \$126 million (0.2 percent) of state and local support for higher education came from this source. (Note: ARRA funds had to be encumbered by federal fiscal 2011 which ended on September 30, 2011. For most states, this is the first quarter of their Fiscal Year 2012.)

Looking Ahead

The long-term enrollment growth documented by SHEF reports illustrates the importance of higher education to the American people. That importance is further underscored by the resiliency of state support per student in the economic recoveries following previous recessions. Those recoveries notwithstanding, students and their families have persistently been asked to shoulder a larger share of the cost of public higher education in the United States. The depth and breadth of the 2008 recession and the challenges of financing health care and retirement costs for an aging population leave little room for hope that this trend can easily be reversed. While serving continuing enrollment demand is an urgent fiscal priority, health care inflation and retirement expenses are also significant cost drivers in higher education. These broadly recognized pressures on public resources compound the financial challenges facing colleges and universities.

During the past three years, 2009, 2010, and 2011, with the assistance of ARRA funding, total state and local support hovered between \$87 and \$88 billion, almost as high as the nearly \$89 billion provided in 2008. In 2011, state and local funding grew enough to offset a decrease in ARRA funds. But 2012 state support for higher education is down 8.0 percent. The impact of this reduction is evident throughout this report. Data collected through the *Grapevine* survey (online at www.grapevine.ilstu.edu and in *Grapevine* Tables 1 and 2 in Appendix A of this report) show Fiscal Year 2013 state tax support grew in 3 of 5 states even though substantial decreases in several large states offset these gains in the national total. While these early signs of a recovery in state support for higher education provide some cause for optimism, according to the National Association of State Budget Officers, state revenue fell at an unprecedented rate and full recovery will, at best, take several years due to the unprecedented scale of state revenue losses during the recession. As shown in the comparative state statistics, conditions in individual states vary dramatically from the national trends described in this report. Every state, however, faces similar questions in meeting the growing needs of its people and communities for higher education, as well as for other public services. The comparative and trend information in this report can assist policy leaders in every state as they determine their goals for higher education and develop strategies for pursuing them.

Measures, Methods, and Analytical Tools

Primary SHEF Measures

To assemble the annual SHEF report, SHEEO collects data on all state and local revenues used to support higher education, including revenues from taxes, lottery receipts, royalty revenue, and state-funded endowments. It also identifies the major purposes for which these public revenues are provided, including general institutional operating expenses, student financial assistance, and support for centrally-funded research, medical education, and extension programs. The analysis of these data yields the following key indicators:

- **State and Local Support**—consisting of state tax appropriations and local tax support plus additional non-tax funds (e.g., lottery revenue) that support or benefit higher education, and funds appropriated to other state entities for specific higher education expenditures or benefits (e.g., employee fringe benefits disbursed by the state treasurer). State and local support for 2009–2012 (federal fiscal years 2009–2011) also includes federal ARRA revenue provided to stabilize this source of revenue for higher education.
- **Educational Appropriations**—that part of state and local support available for public higher education operating expenses, defined to exclude spending for research, agricultural, and medical education, as well as support for independent institutions or students attending them. Since funding for medical education and other major non-instructional purposes varies substantially across states, excluding these funding components helps to improve the comparability of state-level data on a per student basis.
- **Net Tuition Revenue**—the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. This is a measure of the resources available through tuition and fees to support instruction and related operations at public higher education institutions. Net tuition revenue generally reflects the share of instructional support received from students and their families, although it is not the same and does not take into account many factors that need to be considered in analyzing the “net price” students pay for higher education.²
- **Total Educational Revenue**—the sum of educational appropriations and net tuition revenue excluding any tuition revenue used for capital and debt service. It measures the amount of revenue available to public institutions to support instruction (excluding medical students). Very few public institutions have significant non-restricted revenue from gifts and endowments to support instruction. In some states, a portion of the net tuition revenue is used to fund capital debt service and similar non-operational activities. These sums are excluded from calculations used to determine total educational revenue.
- **Full-Time Equivalent Enrollment (FTE)**—a measure of enrollment equal to one student enrolled full-time for one academic year, calculated from the aggregate number of enrolled credit hours (including summer session enrollments). SHEF excludes most non-credit or non-degree program enrollments; medical school enrollments also are excluded for the reasons mentioned above. The use of FTE enrollment reduces multiple types of enrollment to a single measure in order to compare changes in total enrollment across states and sectors, and to provide a straightforward method for analyzing revenue on a per student basis.

² SHEF does not provide a measure of “net price,” a term that generally refers to the cost of attending college after deducting assistance provided by federal, state, and institutional grants. SHEF does not deduct federal grant assistance (primarily from Pell Grants) from gross tuition revenue, since these are non-state funds that substitute, at least in part, for non-tuition costs borne by students. Non-tuition costs (room and board, transportation, books, and incidentals) typically total \$10,000 or more annually in addition to tuition costs. This requires students with a low expected family contribution (most Pell recipients) to augment federal grants with a substantial contribution from part-time work or loans, even at a comparatively low-tuition public institution. In addition, the availability of federal tuition tax credits since 1999 has helped reduce “net price” for middle- and lower-middle-income students. While these tax credits have no impact on the net tuition revenue received by institutions, they do reduce the “net price” paid by students. SHEF’s net tuition revenue statistic is not a measure of “net price,” but a measure of the revenue that institutions received from tuition. It is a straightforward measure of the proportion of public institution instructional costs borne by students and families. Measures of net price for the student need to include non-tuition costs and all forms of aid.

Adjustments for Comparability

SHEF's analytic methods are designed to make basic data about higher education finance as comparable as possible across states and over time. Toward that end, financial indicators are provided on a per student basis (using FTE enrollment as the denominator), and the State Higher Education Finance (SHEF) report employs three adjustments to the "raw data" provided by states:

- **Cost of Living Adjustment (COLA)** to account for cost of living differences among the states;
- **Enrollment Mix Index (EMI)** to adjust for differences in the mix of enrollment and costs among types of institutions with different costs across the states; and
- **Higher Education Cost Adjustment (HECA)** to adjust for inflation over time.

Technical Papers A and B appended to this report describe these adjustments in some detail. Tables provided in these technical papers show the actual effects of the COLA and EMI adjustments on the data provided by individual states, as well as the HECA adjustment from current to constant dollars (inflation-adjusted dollar values that are made annually to reflect inflation). Additional appendices provide a glossary of terms and definitions, a copy of the data collection instructions, and a list of state data providers.

Financial Data in Perspective: Uses and Cautions

Higher education financial analysis is essential, but using financial data can be tricky and even deceptive. This section is intended to help readers and users focus on some of the core purposes of interstate financial analysis, while being cognizant of limitations inherent in the data and methods.

Comparing institutions and states is a difficult task. Consider how different the states are, even after adjusting for population size. They vary in climate, energy costs, housing costs, population densities, growth rates, resource bases, and the mix of industries and enterprises driving their local economies. Some have a relatively homogeneous, well-educated population, while others have large numbers of disadvantaged minorities and recent immigrants. Most states have pockets of poverty, but these vary in their extent and concentration. Finally, the extent and rate to which these socio-economic and demographic factors are changing also varies across states.

State higher education systems also differ. Some have many small institutions, others fewer but larger institutions. Some have many independent (privately controlled) institutions; others rely almost entirely on public institutions, with varying combinations of research universities, community colleges, and four-year universities. Across states, tuition policies and rates vary, as do the amounts and types of financial aid, which in turn affect enrollment patterns. Some states have multiple institutions that offer high-cost medical education and engineering programs, while others provide substantially more funding for research or emphasize undergraduate education.

In addition to these differences, technical factors can make interstate comparisons misleading. As one example, states differ in how they finance employee benefits, including retirement. Some pay all retirement costs to employee accounts when the benefits are earned, while others defer part of the costs until the benefits are paid. Some pay benefit costs through a state agency, while others pay from institutional budgets. Many studies of state finance try to account for such factors, but no study, including this one, can assure flawless comparisons.

The SHEF report seeks to provide—to the extent possible—comparable data and reliable methods for examining many of the most fundamental financial issues facing higher education, particularly at the state level. Its purpose is to help educators and policymakers:

- Examine whether or not state funding for colleges and universities has kept pace with enrollment growth and inflationary cost increases;

- Focus on the major purposes for state spending on higher education and how these investments are allocated;
- Assess trends in the proportion or “share” that students and families are paying for higher education;
- See how funding of their state’s higher education system compares to other states; and
- Assess the capacity of their state economy and tax policies to generate revenue to support public priorities such as higher education.

While making finance data cleaner, consistent, and more comparable, SHEF’s analytic methods also add complexity. All comparisons can claim only to be “valid, more or less,” and SHEF is no exception. Analysts with knowledge of particular states probably know of other factors that should be taken into account, or that could mislead comparative analysis. SHEEO continues to welcome all efforts to improve the quality of its data and analytical tools. We urge readers and users to help us improve both methods and understanding.

Many educators and policymakers (and segments of the public) may look to interstate financial analysis to determine “appropriate” or “sufficient” funding for higher education. But sufficiency is meaningful only in the context of a particular state’s objectives and circumstances. State leaders, educators, and others must work together to set goals and develop strategies to achieve those goals, and then determine the amount and allocation of funds required for success.

Whether the objective is to sustain competitive advantage or to improve the postsecondary education system, money is always an issue. With additional resources, educators can serve more students at higher levels of quality. But more spending does not necessarily yield proportional increases in quantity or quality.³ Efficiency is a thorny issue in educational finance; educators always can find good uses for additional resources, and resources always are limited. If educators and policymakers can agree that it is highly desirable to achieve widespread educational attainment more cost-effectively, they can work together to increase educational productivity. Authentic productivity gains require sustained effort, a combination of investing in priorities, and finding efficiencies through incentives, reallocation, and innovation.

The question, “How much funding is enough?” has no easy answer at the state or national level. Educators and policymakers must work together to address such key questions as:

- What kind of higher education system do we want?
- What will it take, given our circumstances, to establish and sustain such a system?
- Are we making effective use of our current investments?
- Where would an incremental or reallocated dollar lead to improved outcomes and help to meet state goals?

Good financial data and analysis are essential for addressing such questions.

³ Jones, D., and Kelly, P. (2005). *A new look at the institutional component of higher education finance: A guide for evaluating performance relative to financial resources*. Boulder, CO: NCHEMS.

Revenue Sources and Uses

Support for higher education involves a substantial financial commitment by state and local governments. Twenty-five years ago, in 1987, state and local governments invested \$33.3 billion (in current dollars) in direct support for the operations of public and independent higher education institutions. By 2012, state and local support for higher education was \$81.2 billion. As shown in *Table 1*, 2012 unadjusted state and local support was lower than the prior five years (2007–2011).

This section provides data and analysis on these sources of state and local government support for higher education, focusing on selected years in the period beginning in 1987 and providing greater detail on the most recent five years (2007–2012). It also provides an overview of the major uses of that support, including state support for (1) research, agricultural extension, and medical education; (2) student financial aid; and (3) independent (private, not-for-profit) institutions.⁴

As shown in *Table 1*, sources for the \$81.2 billion state and local government support for higher education in 2012 included the following:

- State sources accounted for more than 89.2 percent, with 84.5 percent coming from appropriations from state tax revenue.
- Non-tax appropriations, mostly from state lotteries, were a small but rapidly growing portion of state funds, increasing from \$2.2 billion in 2007 to \$2.8 billion in 2012.
- Local appropriations accounted for 11.0 percent, up from 10.2 percent in 2011 with some degree of local tax support for higher education in 31 states.
- State-funded endowment earnings, a source for higher education revenue in nine states, accounted for another 0.6 percent.
- Oil and mineral extraction fees or other lease income (generally not appropriated) accounted for 0.1 percent.
- Federal funds allocated to states for higher education operations through the American Recovery and Reinvestment Act were largely encumbered by 2012 and made up just 0.2 percent (\$126 million) of the total state and local support that year.

Major uses of the \$81.2 billion in 2012 state and local government funding for higher education included:

- \$62.1 billion (76.5 percent) for general operating expenses of public higher education institutions
- \$10.2 billion (12.6 percent) for special-purpose appropriations—research, agricultural extension, and medical education
- State-funded student financial aid programs, including state-funded programs for students attending independent as well as public institutions, accounted for about 10.3 percent of the funds used. States spent 7.4 percent of state and local government funding on student financial aid programs at public institutions, up from 5.6 percent in 2007. Despite the challenges of the economic downturn, states remained invested in maintaining support for these aid programs; although the enrollment growth that occurred throughout the downturn likely led to decreased purchasing power of these funds as more students were eligible for aid.
- Direct support of independent institutions was reported in 13 states with such state-funded programs and made up 0.2 percent of the funds used.

⁴ *Supplemental SHEF Tables*, which are available at www.sheeo.org, provide more-detailed data and tables on state-by-state sources and uses of higher education funding for 2012. As noted in the examples below, revenue sources vary considerably across states and from the national averages.

Table 1
Major Sources and Uses of State and Local Government Support
Fiscal 2007-2012 (Current Dollars in Millions)

	2007	2008	2009	2010	2011	2012
State Support						
ARRA Funds	-	-	2,268	4,497	2,846	126
Tax Appropriations	72,157	77,404	74,535	70,655	72,627	68,552
All Non-Tax Support	2,223	2,252	2,709	2,781	2,870	2,814
Non-Appropriated Support	100	72	81	81	80	89
State Funded Endowment Earnings	318	347	398	400	387	471
Other (1)	617	688	211	209	525	242
Funds Not Available for Use (2)	38	81	636	394	812	60
State Total	75,378	80,681	79,567	78,230	78,522	72,234
Local Tax Appropriations	7,300	8,084	8,427	8,732	8,883	8,926
Total	\$ 82,678	\$ 88,765	\$ 87,994	\$ 86,962	\$ 87,406	\$ 81,160
Uses						
Research-Agric-Medical	10,276	11,162	10,952	10,556	10,449	10,229
Public Student Aid (3)	4,665	4,972	5,393	5,852	6,171	6,009
Independent Student Aid (4)	2,404	2,441	2,496	2,372	2,330	2,276
Out-of-State Student Aid	37	33	36	38	35	35
Independent Institutions	287	295	255	214	183	181
Non-Credit and Continuing Education	339	324	322	342	360	346
General Public Operations	64,671	69,538	68,541	67,588	67,878	62,083
Total	\$ 82,678	\$ 88,765	\$ 87,994	\$ 86,962	\$ 87,406	\$ 81,160
PERCENTAGES						
Source	2007	2008	2009	2010	2011	2012
State Support						
ARRA Funds	0.0%	0.0%	2.6%	5.2%	3.3%	0.2%
Tax Appropriations	87.3%	87.2%	84.7%	81.2%	83.1%	84.5%
All Non-Tax Support	2.7%	2.5%	3.1%	3.2%	3.3%	3.5%
Non-Appropriated Support	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
State Funded Endowment Earnings	0.4%	0.4%	0.5%	0.5%	0.4%	0.6%
Other (1)	0.7%	0.8%	0.2%	0.2%	0.6%	0.3%
Funds Not Available for Use (2)	0.0%	0.1%	0.7%	0.5%	0.9%	0.1%
State Total	91.3%	91.1%	91.9%	90.9%	91.7%	89.2%
Local Tax Appropriations	8.8%	9.1%	9.6%	10.0%	10.2%	11.0%
Total	100.1%	100.2%	101.4%	100.9%	101.9%	100.1%
Uses						
Research-Agric-Medical	12.4%	12.6%	12.4%	12.1%	12.0%	12.6%
Public Student Aid (3)	5.6%	5.6%	6.1%	6.7%	7.1%	7.4%
Independent Student Aid (4)	2.9%	2.8%	2.8%	2.7%	2.7%	2.8%
Out-of-State Student Aid	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Independent Institutions	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
Non-Credit and Continuing Education	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
General Public Operations	78.2%	78.3%	77.9%	77.7%	77.7%	76.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Percentages may not equal 100 due to rounding.

Notes:

- 1) "Other" includes multi-year appropriations from previous years and funds not classified into one of the other source categories.
- 2) "Funds Not Available for Use" includes appropriations that were returned to the state, and portions of multi-year appropriations to be spread over other years.
- 3) "Public Student Aid" is state appropriated student financial aid for public institution tuition and fees. Includes aid appropriated outside the recognized state student aid program(s). Some respondents could not separate tuition aid from aid for living expenses.
- 4) "Independent Student Aid" is state appropriated student financial aid for students attending independent institutions in the state.

Source: State Higher Education Executive Officers

National Trends in Enrollment and Revenue

This section highlights national trends in higher education enrollment and the relationship between these trends and available revenue (and other components of financing). These “national” trends are actually composites of 50 unique and varied state trends. The following section and Supplemental SHEF Tables (on the website www.sheeo.org) provide detailed information on the varied patterns over time and across states.

The historical data in *Figure 3* demonstrate the relationships between higher education enrollment and revenue over time. *Figure 3* also illustrates the longer-term trends. In the 2010 SHEF report, state and locally financed educational appropriations for public higher education hit the lowest level (now \$6,729 per FTE in constant 2012 dollars) in a quarter century, driven by accelerating enrollment growth, modest inflation, and the failure of state and local funding to keep pace with either during the past two years. This downward trend continued in 2011 and 2012 with state and locally financed educational appropriations at \$6,483 and \$5,896 per FTE, respectively. In constant dollars, 2012 education appropriations per FTE are 9.1 percent lower than 2011.

Figure 3 illustrates the following:

Full-Time-Equivalent Enrollment (FTE)

- Nationally, the explosive enrollment growth for public institutions tapered off in 2012, when enrollment actually declined slightly by 0.7 percent over 2011. Despite this small decline, 2012 enrollment is 15.6 percent higher over 2007. Since the beginning of the 21st century, enrollments have grown by 34.2 percent.
- Enrollment grew rapidly from 2000 to 2005, and then more modestly in 2006 and 2007 (see the “public FTE enrollment” trend line in *Figure 3*). Growth accelerated again in 2009 (4.5 percent) and 2010 (5.7 percent). 2011 shows more modest growth of 2.5 percent over 2010.
- The rate of enrollment growth normally varies from year to year and state to state in response to the economy and job market as well as underlying demographic factors. Budget conditions in 2012, however, likely had an especially adverse effect on higher education enrollments. Budget driven enrollment caps, increased tuition and fees, and reductions in aid per student from state financial aid programs likely drove enrollments down in 2012. In fact, when we remove California’s enrollment from the national totals, enrollment declined just 0.2 percent in 2012 over 2011.

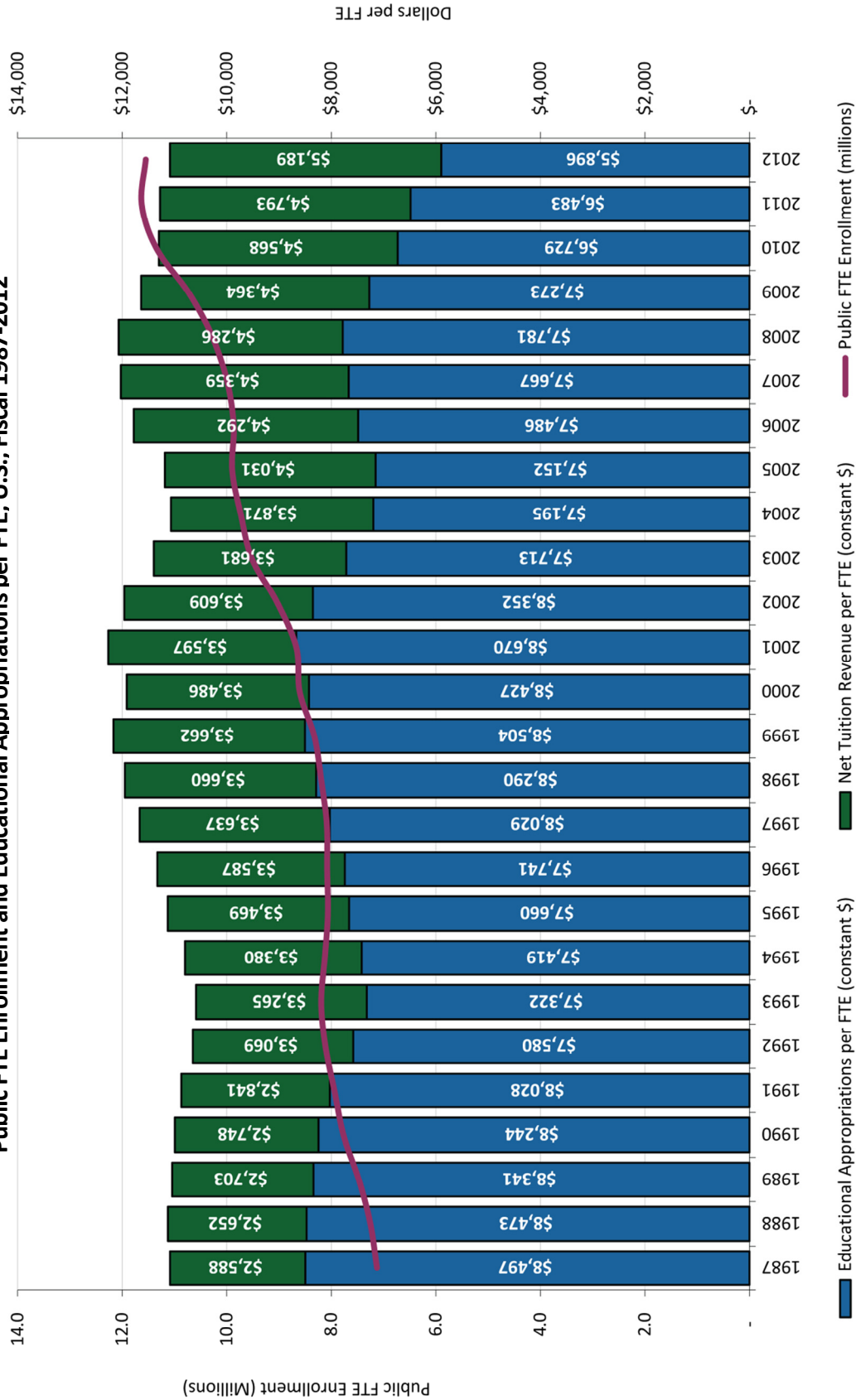
Educational Appropriations

- Constant dollar educational appropriations per FTE (see the blue bars in *Figure 3*) reached a high of \$8,670 in 2001.
- Following four years of decline (2002, 2003, 2004, and 2005), per student educational appropriations increased in 2006, 2007, and 2008, recovering to \$7,781 and then declining each of the last four years to \$5,896 in 2012.
- Appropriations per FTE were lower in 2012 (in constant dollars) than in any year since 1980.

Net Tuition Revenue

- The rate of increase in net tuition was slower in 2007 and 2008 than in the previous three years, but in 2010, net tuition as a percentage of total educational revenue per student increased to 40.6 percent and in 2012 was 47.0 percent.
- The rate of growth in net tuition revenue has been particularly steep during periods when state and local support have fallen short of inflation and enrollment growth, typically during and immediately following economic recessions.
- The substantial shift of responsibility for financing public higher education toward net tuition (from less than 30 percent to nearly 50 percent) in a dozen years is a significant change for American higher education.

Figure 3
Public FTE Enrollment and Educational Appropriations per FTE, U.S., Fiscal 1987-2012



Note: Net tuition revenue used for capital debt service are included in the above figures.
Constant 2012 dollars adjusted by SHEEO Higher Education Cost Adjustment (HECA).

Source: State Higher Education Executive Officers

Net Tuition Revenue at Public Institutions—Further Discussion

Among the many policy-relevant financial issues facing policymakers, the increased reliance on tuition revenue to support higher education stands out. The SHEF data collection instrument requests that states calculate and report annual estimates for gross tuition and fee revenues based on tuition rates and credit-hour enrollment. Across all states, these gross tuition and fee assessments in public postsecondary institutions totaled \$78.5 billion in 2012. After subtracting state-funded public financial aid, institutional discounts and waivers, and tuition and fees paid by medical school students, the net tuition revenue available to support “general operating costs” was \$59.9 billion, 76.3 percent of gross assessments.

The resulting total net tuition revenue for selected years between 1987 and 2012 is reported in *Table 2* in current dollars and in *Table 3* in constant dollar values.⁵ Some states report that a portion of the public institution tuition and fees is used for capital debt service or retirement. *Tables 2* and *3* show this amount. Tuition and fees used for debt service are included in net tuition, but they are not included in the calculation of total educational revenue. This procedure reflects the fact that these debt service costs are borne by students, but are not available to support general operating and educational costs.

As shown in *Figures 3* and *4*, net tuition revenue has grown most rapidly as a percentage of total educational revenue in public institutions during periods when constant dollar state support per student has declined. Nationally, net tuition accounted for just about 23.3 percent of educational revenue in 1987, which followed the recession of 1981-82. Net tuition revenue remained near that level through the rest of the 1980s. Following the recession of 1990-91, the net tuition share of educational revenue grew rapidly to 31 percent, where it stayed through the 1990s. In the three years following the recession in 2001, during which enrollment grew rapidly and aggregate state funding remained relatively constant, the net tuition share of total educational revenue grew rapidly to 35 percent. Following the recession of 2008, net tuition has climbed to its current level of 47 percent.

The combination of state government support, local tax appropriations, and tuition revenue constitutes the principal source of support for instructional programs at public institutions. Estimates made on the basis of institutional data reported to the National Center for Education Statistics indicate that the proportion of public institution revenue derived from tuition varies substantially. At public, two-year institutions, on average just over 75 percent of educational operating revenue is derived from state or local sources, with the remaining 25 percent coming from tuition revenue. At public four-year institutions, on average well over 40 percent of educational operating revenue is derived from tuition, with the remainder from state and other sources.

State support remains central to supporting educational services even at public research universities where its importance tends to get lost within the complex budgets of large institutions. (Multiple other sources of revenue received and used by research universities are associated with sponsored research and contracts, auxiliary enterprises, and hospitals and other medical activities. These activities may complement and enhance instruction, but they are typically expected to be mostly, or entirely, financially self-supporting.) The combination of state support and tuition remains the dominant revenue source for instructional programs, and in 26 states public support still exceeds that provided through student charges. In seven states, however, net tuition revenue is more than twice the amount of public support.

Rapid increases in public tuition rates have naturally and appropriately attracted substantial attention and concern. While some assume the rapid “price increases” reflect excessive spending, per student spending in public institutions has been flat or declining since 2000. Recent tuition increases are driven primarily by the failure of public support to keep pace with enrollment growth and inflation.

⁵ Detailed state-level information can be found in the *Supplemental SHEF Tables* (www.sheeo.org).

Others suggest that states are abandoning their historical commitment to public higher education. National data and more careful attention to variable state conditions strongly suggest that such a sweeping conclusion is not justified. It also is not consistent with the stated intentions of most state policymakers. But the steady increase in tuition rates and the growing reliance on this source of revenue have the potential of reducing opportunity and decreasing the educational attainment of the American people.

The overriding objective for public investment in education is to achieve authentic, high quality attainment at scale, which in turn will yield greater economic security and better, more satisfying lives for the American people. Adequate revenue for a world class educational system, and prices and financial assistance that encourage and enable widespread completion are essential.

Table 2
Higher Education Finance Indicators (Current Unadjusted Dollars in Millions)

(Current Dollars)	1987	2002	2007	2011	2012	1 Year Change
ARRA Funds	\$ -	\$ -	\$ -	\$ 2,846	\$ 126	-95.6%
State	\$ 31,084	\$ 61,618	\$ 72,311	\$ 72,769	\$ 69,269	-4.8%
Local	\$ 2,186	\$ 5,970	\$ 7,300	\$ 8,883	\$ 8,926	0.5%
[A] State and Local Support for Public Higher Education	\$ 33,270	\$ 67,588	\$ 79,611	\$ 84,498	\$ 78,321	-7.3%
[B] Research - Agriculture - Medical (RAM)	\$ 5,581	\$ 9,767	\$ 10,276	\$ 10,449	\$ 10,229	-2.1%
[C] Educational Appropriations [A-B]	\$ 27,689	\$ 57,820	\$ 69,336	\$ 74,049	\$ 68,092	-8.0%
[D] Net Tuition	\$ 8,433	\$ 24,986	\$ 39,417	\$ 54,743	\$ 59,932	9.5%
[E] Tuition and Fees Used for Debt Service	\$ -	\$ 135	\$ 328	\$ 574	\$ 596	3.8%
Total Educational Revenue [C+D-E]	\$ 36,122	\$ 82,671	\$ 108,425	\$ 128,218	\$ 127,429	-0.6%
Net Tuition as a % of Total Educational Revenue	23.3%	30.2%	36.4%	42.7%	47.0%	
Full-Time Equivalent Enrollment (FTE) ⁽¹⁾	7,125,541	9,034,365	9,991,723	11,626,983	11,548,974	-0.7%
Educational Appropriations Per FTE	\$ 3,886	\$ 6,400	\$ 6,939	\$ 6,369	\$ 5,896	-7.4%
Net Tuition Per FTE	\$ 1,183	\$ 2,766	\$ 3,945	\$ 4,708	\$ 5,189	10.2%
Total Educational Revenue Per FTE	\$ 5,069	\$ 9,151	\$ 10,852	\$ 11,028	\$ 11,034	0.1%
State Support for Independent and Out of State Institutions ⁽²⁾		\$ 2,086	\$ 2,728	\$ 2,547	\$ 2,493	-2.1%
Aid to Students Attending Independent Institutions	\$ -	\$ 1,799	\$ 2,404	\$ 2,330	\$ 2,276	-2.3%
Aid to Students Attending Out of State Institutions	\$ -	\$ 23	\$ 37	\$ 35	\$ 35	2.5%
Operating Grants	\$ -	\$ 264	\$ 287	\$ 183	\$ 181	-0.7%

Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1987.

Source: State Higher Education Executive Officers

Table 3
Higher Education Finance Indicators (Constant Adjusted 2012 Dollars in Millions)

	1987	2002	2007	2011	2012	1 Year Change	5 Year Change	10 Year Change	25 Year Change
<i>ARRA Funds</i>	\$ -	\$ -	\$ -	\$ 2,897	\$ 126	-95.6%	N/A	N/A	N/A
State	\$ 67,966	\$ 80,407	\$ 79,893	\$ 74,076	\$ 69,269	-6.5%	-13.3%	-13.9%	1.9%
Local	\$ 4,779	\$ 7,790	\$ 8,066	\$ 9,043	\$ 8,926	-1.3%	10.7%	14.6%	86.8%
[A] State and Local Support for Public Higher Education	\$ 72,745	\$ 88,196	\$ 87,959	\$ 86,016	\$ 78,321	-8.9%	-11.0%	-11.2%	7.7%
[B] Research - Agriculture - Medical (RAM)	\$ 12,203	\$ 12,745	\$ 11,353	\$ 10,637	\$ 10,229	-3.8%	-9.9%	-19.7%	-16.2%
[C] Educational Appropriations [A-B]	\$ 60,542	\$ 75,451	\$ 76,606	\$ 75,379	\$ 68,092	-9.7%	-11.1%	-9.8%	12.5%
[D] Net Tuition	\$ 18,439	\$ 32,604	\$ 43,550	\$ 55,726	\$ 59,932	7.5%	37.6%	83.8%	225.0%
[E] Tuition and Fees Used for Debt Service	\$ -	\$ 176	\$ 362	\$ 585	\$ 596	1.9%	64.6%		
Total Educational Revenue [C+D-E]	\$ 78,981	\$ 107,879	\$ 119,794	\$ 130,521	\$ 127,429	-2.4%	6.4%	18.1%	61.3%
Net Tuition as a % of Total Educational Revenue	23.3%	30.2%	36.4%	42.7%	47.0%				
Full-Time Equivalent Enrollment (FTE) ⁽¹⁾	7,125,541	9,034,365	9,991,723	11,626,983	11,548,974	-0.7%	15.6%	27.8%	62.1%
<i>Educational Appropriations Per FTE</i>	\$ 8,497	\$ 8,352	\$ 7,667	\$ 6,483	\$ 5,896	-9.1%	-23.1%	-29.4%	-30.6%
<i>Net Tuition Per FTE</i>	\$ 2,588	\$ 3,609	\$ 4,359	\$ 4,793	\$ 5,189	8.3%	19.1%	43.8%	100.5%
<i>Total Educational Revenue Per FTE</i>	\$ 11,084	\$ 11,941	\$ 11,989	\$ 11,226	\$ 11,034	-1.7%	-8.0%	-7.6%	-0.5%
State Support for Independent and Out of State Institutions ⁽²⁾		\$ 2,722	\$ 3,014	\$ 2,593	\$ 2,493	-3.9%	-17.3%		
<i>Aid to Students Attending Independent Institutions</i>		\$ 2,347	\$ 2,656	\$ 2,372	\$ 2,276	-4.0%	-14.3%		
<i>Aid to Students Attending Out of State Institutions</i>		\$ 30	\$ 41	\$ 35	\$ 35	0.6%	-13.1%		
<i>Operating Grants</i>		\$ 344	\$ 318	\$ 186	\$ 181	-2.5%	-42.9%		

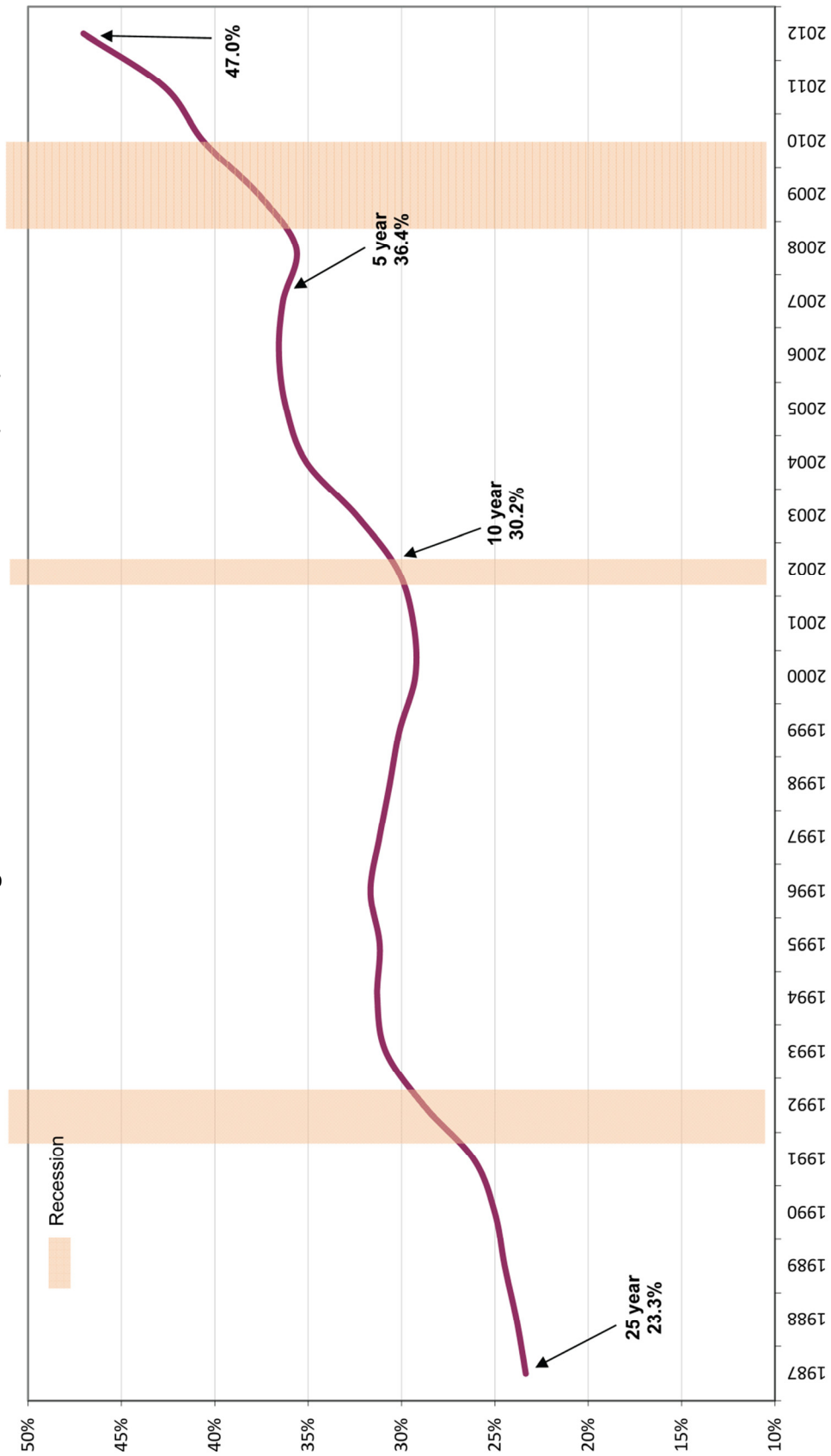
Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1987.

Source: State Higher Education Executive Officers

Figure 4
Net Tuition as a Percent of Public Higher Education Total Educational Revenue, U.S., Fiscal 1987-2012



Note: Net tuition revenue used for capital debt service is included in net tuition revenue, but excluded from total educational revenue in calculating the above figures.

Source: State Higher Education Executive Officers

Interstate Comparisons— Making Sense of Many Variables

National averages and trends often mask substantial variation and important differences across the 50 states. This section provides ways to examine interstate differences more closely. First, it explains in greater detail the adjustments SHEF makes to state-level data. Next, it illustrates differences across single variables or dimensions of higher education financing; for example, rates of enrollment growth or the varying proportions of public versus tuition financing. Third, it compares or “locates” states in relation to one another across two variables or dimensions of higher education finance; for example, taking into account both where a state currently stands in its support for higher education and whether the level of support has been decreasing or increasing relative to other states.

SHEF Adjustments to Facilitate Interstate Comparisons

Many factors affect the decisions and relative positions of states in their funding of higher education. Although no comparative analysis can take all of these into account, SHEF makes two adjustments to reflect the most basic differences—differences in the cost of living across states and in the public postsecondary enrollment mix among different types of institutions.

Technical Paper Table 1 (in Technical Paper B) shows the impact of SHEF cost of living and enrollment mix adjustments on total educational revenue per FTE. These adjustments tend to draw states toward the national average; for example, states with a high cost of living also tend to support higher education at above average levels, in which cases, the SHEF adjustments for living costs reduce the extent of their above average higher education revenues per student. The size and direction of these adjustments vary across states. In brief:

- In states where the cost of living exceeds the national average, dollars per FTE are adjusted downward (e.g., Massachusetts). In states where the cost of living is below the national average, dollars per FTE are adjusted upward (e.g., Mississippi).
- If the proportion of enrollment in higher-cost institutions (e.g., research institutions) exceeds the national average, the dollars per FTE are adjusted downward. In states with a relatively inexpensive enrollment mix (e.g., more community colleges), the dollars per FTE are adjusted upward.
- Dollars per FTE are adjusted upward the most in states with an inexpensive enrollment mix and low cost of living (e.g., Arkansas). The reverse is true for states that possess both a more expensive enrollment mix and a higher cost of living (e.g., Colorado). In some states, the two factors cancel out each other (e.g., Washington).

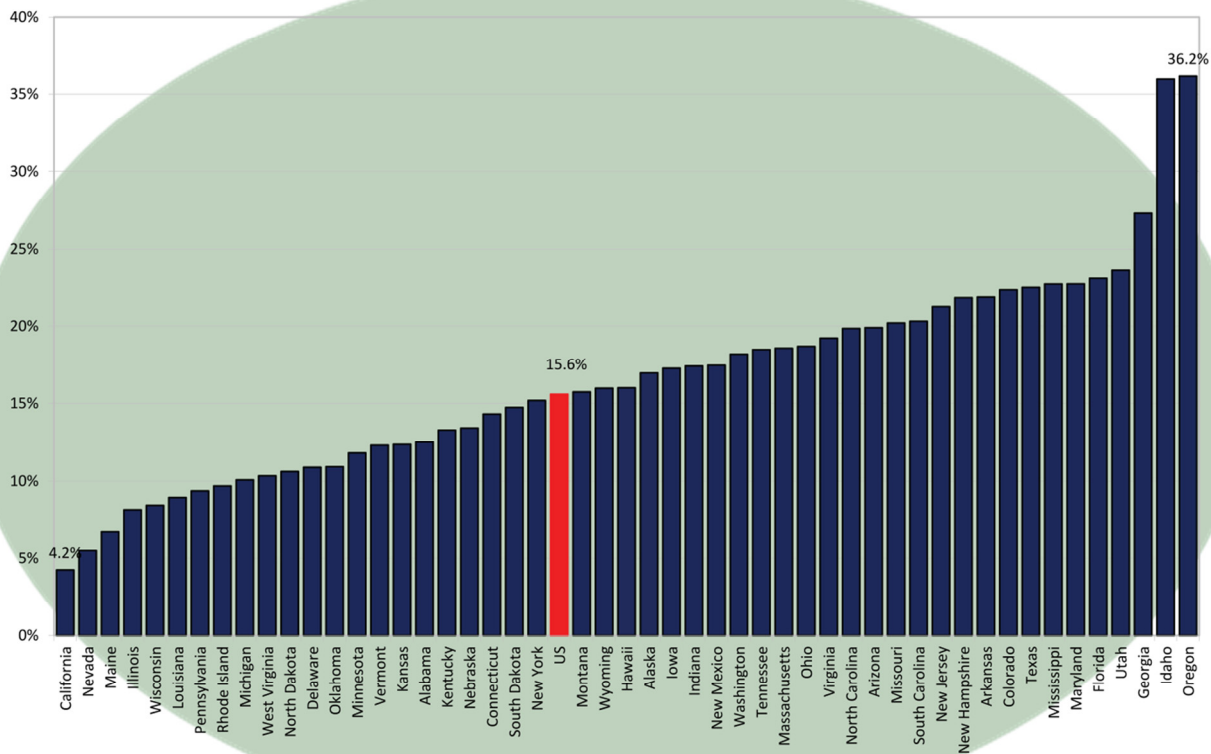
Comparing States across Single Dimensions or Variables

This section illustrates the variability across states and over time with respect to higher education enrollment growth, total state and local appropriations, the proportion of tuition-derived revenue, total revenue available for public educational programs, and current funding in the context of each state’s average national position over the past 25 years.

Figure 5 (and the accompanying data in Table 4) shows change in full-time-equivalent enrollment (FTE) in public higher education by state for the five years between 2007 and 2012.

- All fifty states have seen enrollment growth over the last five years, ranging from 4.2 percent in California to 36.2 percent in Oregon.
- The 28 states in which enrollment growth exceeded the national average of 15.6 percent include both large and small states, high and low population growth states, and several states where enrollment increased much faster than overall population changes.
- Fourteen states saw enrollment growth of more than 20 percent, while three states exceeded 25 percent.
- Between 2011 and 2012, enrollment declined slightly nationally and in most states. California, where substantial tuition increases and enrollment caps were imposed, saw a reduction of 3.7 percent, or 57,000 students. In contrast, the largest percentage increase was in Idaho where enrollment grew 10.9 percent over 2011.

Figure 5
Full-Time Equivalent (FTE) Enrollment in Public Higher Education
Percent Change by State, Fiscal 2007-2012



Source: State Higher Education Executive Officers

Table 4
Public Higher Education Full-Time Equivalent (FTE) Enrollment

	FY 2007	FY 2011	FY 2012	1 Year % Change	5 Year % Change
Alabama	182,504	212,758	205,317	-3.5%	12.5%
Alaska	18,656	21,239	21,819	2.7%	17.0%
Arizona	229,558	275,071	275,238	0.1%	19.9%
Arkansas	103,369	124,204	125,981	1.4%	21.9%
California	1,434,993	1,553,237	1,495,868	-3.7%	4.2%
Colorado	157,382	195,621	192,541	-1.6%	22.3%
Connecticut	74,951	86,281	85,683	-0.7%	14.3%
Delaware	31,269	34,648	34,672	0.1%	10.9%
Florida	518,086	636,320	638,018	0.3%	23.1%
Georgia	297,755	385,615	379,004	-1.7%	27.3%
Hawaii	35,010	40,743	40,612	-0.3%	16.0%
Idaho	43,378	53,201	58,980	10.9%	36.0%
Illinois	390,359	426,871	422,261	-1.1%	8.2%
Indiana	222,980	268,638	261,765	-2.6%	17.4%
Iowa	112,934	132,744	132,423	-0.2%	17.3%
Kansas	127,245	141,789	142,967	0.8%	12.4%
Kentucky	140,621	159,805	159,305	-0.3%	13.3%
Louisiana	166,671	183,633	181,589	-1.1%	9.0%
Maine	35,514	38,284	37,897	-1.0%	6.7%
Maryland	197,966	238,742	242,955	1.8%	22.7%
Massachusetts	143,565	168,671	170,221	0.9%	18.6%
Michigan	384,455	434,939	423,198	-2.7%	10.1%
Minnesota	191,456	214,342	214,055	-0.1%	11.8%
Mississippi	115,739	136,487	142,031	4.1%	22.7%
Missouri	163,354	197,890	196,360	-0.8%	20.2%
Montana	35,293	40,961	40,847	-0.3%	15.7%
Nebraska	73,940	84,384	83,861	-0.6%	13.4%
Nevada	61,323	69,169	64,697	-6.5%	5.5%
New Hampshire	32,092	39,036	39,099	0.2%	21.8%
New Jersey	229,968	277,147	278,868	0.6%	21.3%
New Mexico	83,224	92,097	97,742	6.1%	17.4%
New York	508,909	578,411	586,204	1.3%	15.2%
North Carolina	344,056	425,779	412,349	-3.2%	19.8%
North Dakota	33,905	37,915	37,503	-1.1%	10.6%
Ohio	383,789	460,747	455,507	-1.1%	18.7%
Oklahoma	132,093	150,171	146,518	-2.4%	10.9%
Oregon	125,113	168,927	170,351	0.8%	36.2%
Pennsylvania	337,425	374,997	369,046	-1.6%	9.4%
Rhode Island	28,926	31,724	31,729	0.0%	9.7%
South Carolina	146,624	176,158	176,416	0.1%	20.3%
South Dakota	29,231	33,312	33,540	0.7%	14.7%
Tennessee	171,845	201,378	203,596	1.1%	18.5%
Texas	794,211	943,694	972,911	3.1%	22.5%
Utah	102,372	125,073	126,594	1.2%	23.7%
Vermont	19,381	22,548	21,765	-3.5%	12.3%
Virginia	273,039	321,965	325,517	1.1%	19.2%
Washington	214,847	261,485	253,902	-2.9%	18.2%
West Virginia	72,679	81,116	80,193	-1.1%	10.3%
Wisconsin	215,098	240,625	233,284	-3.1%	8.5%
Wyoming	22,569	26,392	26,174	-0.8%	16.0%
US	9,991,723	11,626,983	11,548,974	-0.7%	15.6%

Notes:

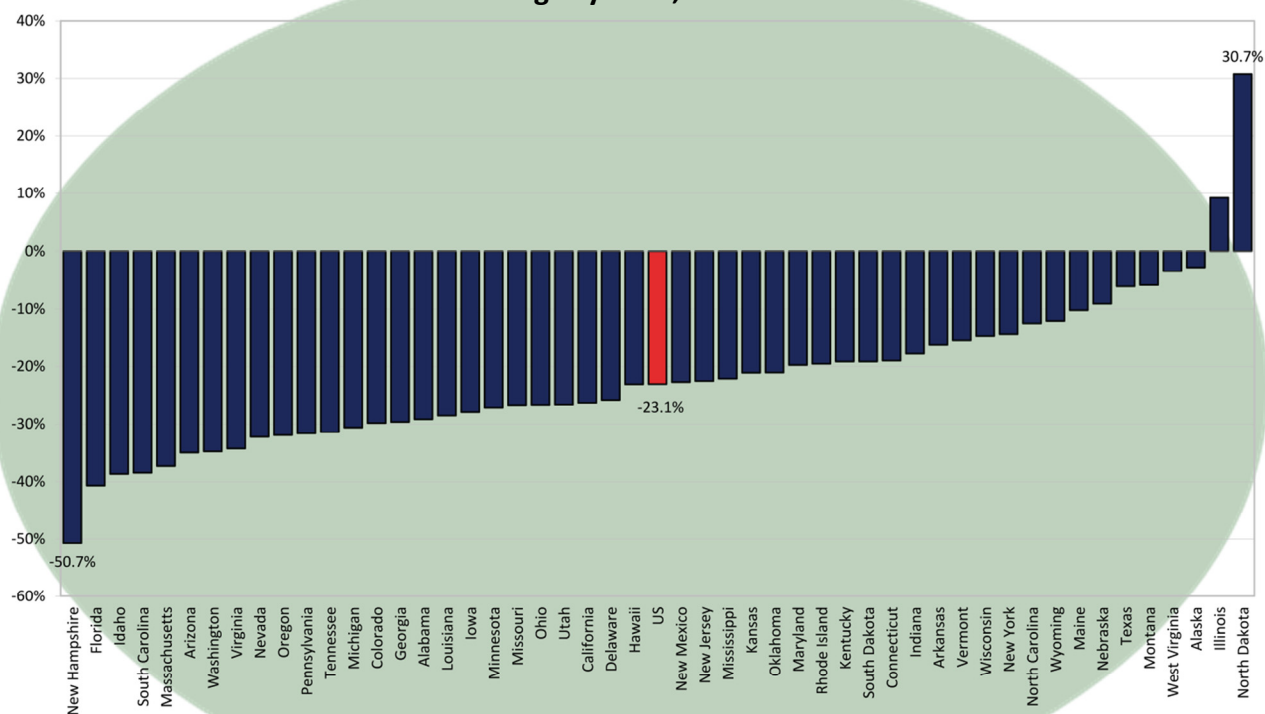
1) Full-time equivalent enrollment equates student credit hours to full time, academic year students, but excludes medical students.

Source: State Higher Education Executive Officers

Figure 6 (and the accompanying data in Table 5) shows the percent change by state in higher education appropriations per public FTE student between 2007 and 2012. The national average per FTE funding for 2012 is lower than 2011 by 9.1 percent (see Table 5), and 23.1 percent lower than 2007.

- Two states, Illinois and North Dakota, increased constant dollar per student support for public institutions during this five-year period. In Illinois, the increases are primarily to cover historical underfunding of pension programs.
- Forty-eight states decreased constant dollar per student funding during this five-year period, thirty by more than 20 percent.
- Federal funds available through the American Recovery and Reinvestment Act were used to fill shortfalls in state support for general operating expenses at public colleges and universities in 2009, 2010, and 2011. These funds were largely spent by 2012.

Figure 6
Educational Appropriations per FTE
Percent Change by State, Fiscal 2007-2012



Note: Dollars adjusted by 2012 HECA, Cost of Living Adjustment, and Enrollment Mix Index.

Source: State Higher Education Executive Officers

Table 5
Educational Appropriations per FTE (Constant Adjusted 2012 Dollars)

	FY 2007	FY 2011	FY 2012	1 Year % Change	FY 2012 Index to US Average	5 Year % Change
Alabama	\$ 8,267	\$ 6,129	\$ 5,855	-4.5%	0.99	-29.2%
Alaska	\$ 12,254	\$ 11,982	\$ 11,909	-0.6%	2.02	-2.8%
Arizona	\$ 7,028	\$ 5,569	\$ 4,567	-18.0%	0.77	-35.0%
Arkansas	\$ 8,196	\$ 7,214	\$ 6,873	-4.7%	1.17	-16.1%
California	\$ 8,929	\$ 7,678	\$ 6,577	-14.3%	1.12	-26.3%
Colorado	\$ 3,636	\$ 3,057	\$ 2,551	-16.6%	0.43	-29.9%
Connecticut	\$ 9,079	\$ 8,323	\$ 7,354	-11.6%	1.25	-19.0%
Delaware	\$ 6,290	\$ 4,688	\$ 4,663	-0.5%	0.79	-25.9%
Florida	\$ 8,649	\$ 6,031	\$ 5,130	-15.0%	0.87	-40.7%
Georgia	\$ 9,445	\$ 7,271	\$ 6,644	-8.6%	1.13	-29.7%
Hawaii	\$ 8,973	\$ 7,035	\$ 6,898	-2.0%	1.17	-23.1%
Idaho	\$ 9,232	\$ 6,663	\$ 5,661	-15.0%	0.96	-38.7%
Illinois	\$ 7,835	\$ 7,753	\$ 8,554	10.3%	1.45	9.2%
Indiana	\$ 5,180	\$ 4,262	\$ 4,258	-0.1%	0.72	-17.8%
Iowa	\$ 6,089	\$ 4,561	\$ 4,390	-3.8%	0.74	-27.9%
Kansas	\$ 5,891	\$ 5,048	\$ 4,647	-7.9%	0.79	-21.1%
Kentucky	\$ 8,608	\$ 7,379	\$ 6,959	-5.7%	1.18	-19.2%
Louisiana	\$ 7,766	\$ 7,440	\$ 5,551	-25.4%	0.94	-28.5%
Maine	\$ 6,762	\$ 6,266	\$ 6,071	-3.1%	1.03	-10.2%
Maryland	\$ 8,310	\$ 7,040	\$ 6,668	-5.3%	1.13	-19.8%
Massachusetts	\$ 7,518	\$ 5,700	\$ 4,712	-17.3%	0.80	-37.3%
Michigan	\$ 6,033	\$ 4,652	\$ 4,185	-10.0%	0.71	-30.6%
Minnesota	\$ 6,324	\$ 5,082	\$ 4,607	-9.4%	0.78	-27.2%
Mississippi	\$ 7,750	\$ 6,943	\$ 6,033	-13.1%	1.02	-22.2%
Missouri	\$ 6,803	\$ 5,314	\$ 4,984	-6.2%	0.85	-26.7%
Montana	\$ 4,258	\$ 4,254	\$ 4,007	-5.8%	0.68	-5.9%
Nebraska	\$ 7,628	\$ 7,018	\$ 6,933	-1.2%	1.18	-9.1%
Nevada	\$ 9,860	\$ 7,489	\$ 6,676	-10.9%	1.13	-32.3%
New Hampshire	\$ 3,213	\$ 2,726	\$ 1,583	-41.9%	0.27	-50.7%
New Jersey	\$ 7,814	\$ 6,487	\$ 6,051	-6.7%	1.03	-22.6%
New Mexico	\$ 9,618	\$ 7,750	\$ 7,430	-4.1%	1.26	-22.8%
New York	\$ 8,802	\$ 8,227	\$ 7,542	-8.3%	1.28	-14.3%
North Carolina	\$ 9,982	\$ 8,892	\$ 8,735	-1.8%	1.48	-12.5%
North Dakota	\$ 5,307	\$ 6,375	\$ 6,938	8.8%	1.18	30.7%
Ohio	\$ 4,997	\$ 4,213	\$ 3,663	-13.0%	0.62	-26.7%
Oklahoma	\$ 8,880	\$ 7,750	\$ 7,008	-9.6%	1.19	-21.1%
Oregon	\$ 5,663	\$ 4,415	\$ 3,851	-12.8%	0.65	-32.0%
Pennsylvania	\$ 5,674	\$ 4,675	\$ 3,875	-17.1%	0.66	-31.7%
Rhode Island	\$ 6,496	\$ 4,756	\$ 5,226	9.9%	0.89	-19.6%
South Carolina	\$ 7,339	\$ 4,886	\$ 4,515	-7.6%	0.77	-38.5%
South Dakota	\$ 5,188	\$ 4,733	\$ 4,195	-11.4%	0.71	-19.2%
Tennessee	\$ 8,145	\$ 6,951	\$ 5,582	-19.7%	0.95	-31.5%
Texas	\$ 8,457	\$ 8,046	\$ 7,938	-1.3%	1.35	-6.1%
Utah	\$ 6,583	\$ 5,129	\$ 4,830	-5.8%	0.82	-26.6%
Vermont	\$ 2,969	\$ 2,645	\$ 2,512	-5.0%	0.43	-15.4%
Virginia	\$ 6,505	\$ 5,323	\$ 4,272	-19.7%	0.72	-34.3%
Washington	\$ 7,345	\$ 5,576	\$ 4,788	-14.1%	0.81	-34.8%
West Virginia	\$ 5,778	\$ 5,596	\$ 5,575	-0.4%	0.95	-3.5%
Wisconsin	\$ 6,606	\$ 6,303	\$ 5,639	-10.5%	0.96	-14.6%
Wyoming	\$ 16,042	\$ 16,230	\$ 14,105	-13.1%	2.39	-12.1%
US	\$ 7,667	\$ 6,483	\$ 5,896	-9.1%		-23.1%

Notes:

1) Educational appropriations measure state and local support available for public higher education operating expenses including ARRA funds and excludes appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education.

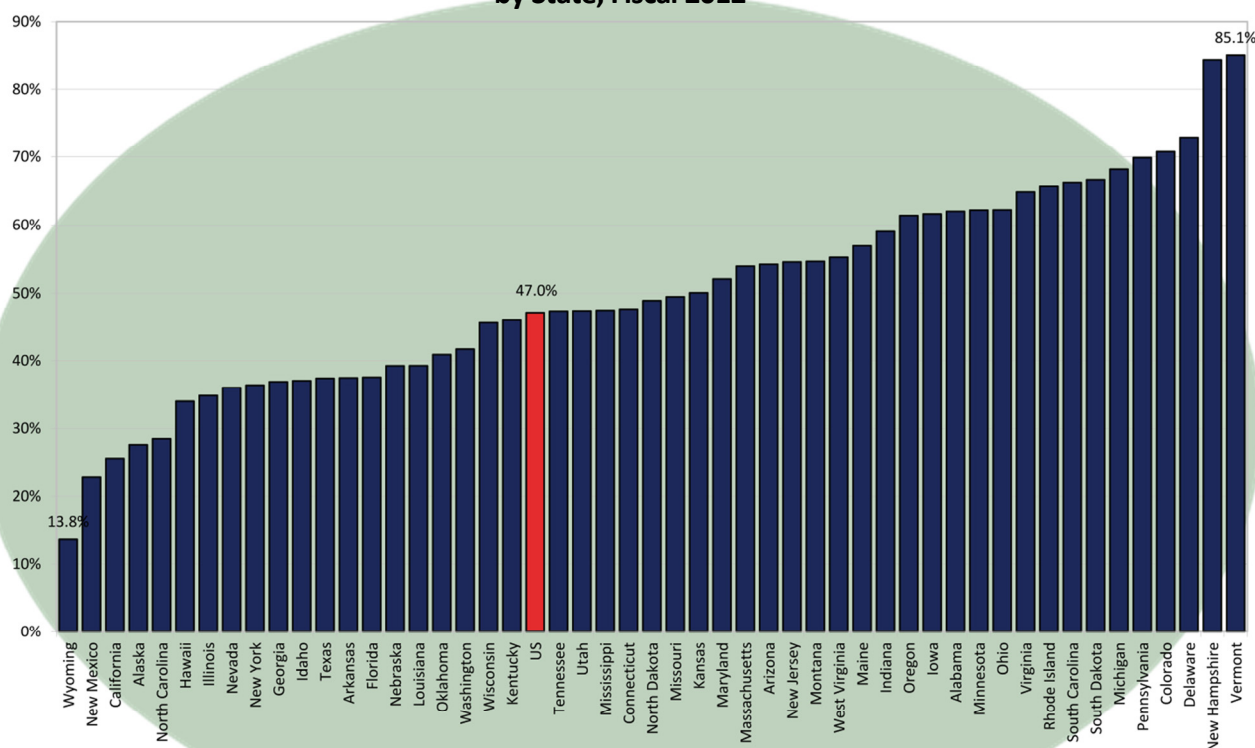
2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA). The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

Source: State Higher Education Executive Officers

Figure 7 shows net tuition revenue as a percent of total educational revenue for public higher education by state for 2012. The accompanying Table 6 shows the dollar values of the net tuition per FTE by state. Table 6 also shows the amount of net tuition per FTE used for debt service, as reported by each state.

- States vary widely in the percent of educational revenue supported by net tuition, from a low of 13.8 percent in Wyoming to a high of 85.1 percent in Vermont.
- Thirty states are above the national average of 47.0 percent in the proportion of educational revenue from tuition sources.
- Twelve states report using some portion of net tuition revenue for debt service. The amount used in 2012 ranges from \$868 per FTE to \$16 per FTE. Nationally, only \$52 of net tuition per FTE was used for debt service in 2012.

Figure 7
Net Tuition as a Percent of Public Higher Education Total Educational Revenue
by State, Fiscal 2012



Note: Dollars adjusted by 2012 HECA, Cost of Living Adjustment, and Enrollment Mix.

Source: State Higher Education Executive Officers

Table 6

Public Higher Education Net Tuition Revenue per FTE (Constant Adjusted 2012 Dollars)

State							Tuition and Fees Used for Debt Service		
	FY 2007	FY 2011	FY 2012	1 Year % Change	FY 2012 Index to US Average	5 Year % Change	FY 2007	FY 2011	FY 2012
Alabama	\$ 6,452	\$ 8,258	\$ 8,553	3.6%	1.65	32.6%	\$ 418	\$ 550	\$ 624
Alaska	\$ 4,000	\$ 4,450	\$ 4,545	2.1%	0.88	13.6%	\$ -	\$ -	\$ -
Arizona	\$ 3,945	\$ 4,648	\$ 5,086	9.4%	0.98	28.9%	\$ 311	\$ 278	\$ 278
Arkansas	\$ 4,315	\$ 5,066	\$ 3,595	-29.0%	0.69	-16.7%	\$ 497	\$ 825	\$ 868
California	\$ 2,164	\$ 1,550	\$ 2,265	46.1%	0.44	4.7%	\$ -	\$ -	\$ -
Colorado	\$ 4,600	\$ 5,939	\$ 6,171	3.9%	1.19	34.2%	\$ -	\$ -	\$ -
Connecticut	\$ 5,990	\$ 6,545	\$ 6,662	1.8%	1.28	11.2%	\$ -	\$ -	\$ -
Delaware	\$ 9,542	\$ 11,030	\$ 12,330	11.8%	2.38	29.2%	\$ 89	\$ 79	\$ 80
Florida	\$ 2,443	\$ 2,923	\$ 3,084	5.5%	0.59	26.2%	\$ -	\$ -	\$ -
Georgia	\$ 2,181	\$ 3,048	\$ 3,872	27.0%	0.75	77.5%	\$ 22	\$ 16	\$ 16
Hawaii	\$ 2,420	\$ 3,376	\$ 3,548	5.1%	0.68	46.6%	\$ -	\$ -	\$ -
Idaho	\$ 2,688	\$ 3,038	\$ 3,329	9.6%	0.64	23.8%	\$ -	\$ -	\$ -
Illinois	\$ 3,288	\$ 4,455	\$ 4,473	0.4%	0.86	36.0%	\$ -	\$ 178	\$ 171
Indiana	\$ 5,795	\$ 5,851	\$ 6,138	4.9%	1.18	5.9%	\$ 21	\$ -	\$ -
Iowa	\$ 5,810	\$ 6,603	\$ 7,060	6.9%	1.36	21.5%	\$ -	\$ -	\$ -
Kansas	\$ 4,037	\$ 4,496	\$ 4,665	3.8%	0.90	15.6%	\$ -	\$ -	\$ -
Kentucky	\$ 4,889	\$ 5,691	\$ 5,927	4.2%	1.14	21.2%	\$ -	\$ -	\$ -
Louisiana	\$ 3,080	\$ 2,731	\$ 3,587	31.4%	0.69	16.5%	\$ -	\$ -	\$ -
Maine	\$ 6,520	\$ 7,894	\$ 8,027	1.7%	1.55	23.1%	\$ -	\$ -	\$ -
Maryland	\$ 6,922	\$ 7,109	\$ 7,256	2.1%	1.40	4.8%	\$ -	\$ -	\$ -
Massachusetts	\$ 5,028	\$ 5,345	\$ 5,526	3.4%	1.06	9.9%	\$ -	\$ -	\$ -
Michigan	\$ 7,242	\$ 8,700	\$ 8,963	3.0%	1.73	23.8%	\$ -	\$ -	\$ -
Minnesota	\$ 5,204	\$ 7,239	\$ 7,589	4.8%	1.46	45.8%	\$ -	\$ -	\$ -
Mississippi	\$ 4,520	\$ 4,998	\$ 5,430	8.7%	1.05	20.1%	\$ -	\$ -	\$ -
Missouri	\$ 4,474	\$ 4,581	\$ 4,885	6.7%	0.94	9.2%	\$ -	\$ -	\$ -
Montana	\$ 4,783	\$ 4,725	\$ 4,834	2.3%	0.93	1.1%	\$ -	\$ -	\$ -
Nebraska	\$ 3,501	\$ 3,616	\$ 4,477	23.8%	0.86	27.9%	\$ -	\$ -	\$ -
Nevada	\$ 2,711	\$ 3,289	\$ 3,754	14.1%	0.72	38.5%	\$ -	\$ -	\$ -
New Hampshire	\$ 7,640	\$ 8,034	\$ 8,605	7.1%	1.66	12.6%	\$ -	\$ -	\$ -
New Jersey	\$ 6,247	\$ 7,096	\$ 7,272	2.5%	1.40	16.4%	\$ -	\$ -	\$ -
New Mexico	\$ 1,422	\$ 2,170	\$ 2,193	1.1%	0.42	54.3%	\$ -	\$ -	\$ -
New York	\$ 3,762	\$ 3,964	\$ 4,310	8.7%	0.83	14.6%	\$ -	\$ -	\$ -
North Carolina	\$ 3,125	\$ 2,816	\$ 3,482	23.6%	0.67	11.4%	\$ -	\$ -	\$ -
North Dakota	\$ 6,475	\$ 6,264	\$ 6,647	6.1%	1.28	2.7%	\$ -	\$ -	\$ -
Ohio	\$ 5,929	\$ 5,602	\$ 6,043	7.9%	1.16	1.9%	\$ -	\$ -	\$ -
Oklahoma	\$ 4,013	\$ 4,434	\$ 4,853	9.5%	0.94	20.9%	\$ -	\$ -	\$ -
Oregon	\$ 5,341	\$ 5,732	\$ 6,133	7.0%	1.18	14.8%	\$ -	\$ -	\$ -
Pennsylvania	\$ 7,141	\$ 8,542	\$ 8,989	5.2%	1.73	25.9%	\$ -	\$ -	\$ -
Rhode Island	\$ 7,904	\$ 9,735	\$ 10,005	2.8%	1.93	26.6%	\$ -	\$ -	\$ -
South Carolina	\$ 6,498	\$ 6,358	\$ 7,649	20.3%	1.47	17.7%	\$ 475	\$ 611	\$ 613
South Dakota	\$ 5,602	\$ 6,491	\$ 7,129	9.8%	1.37	27.3%	\$ 475	\$ 638	\$ 625
Tennessee	\$ 4,066	\$ 4,441	\$ 4,869	9.6%	0.94	19.7%	\$ 129	\$ 143	\$ 146
Texas	\$ 4,614	\$ 4,838	\$ 4,740	-2.0%	0.91	2.7%	\$ 5	\$ -	\$ -
Utah	\$ 3,383	\$ 4,162	\$ 4,335	4.2%	0.84	28.1%	\$ -	\$ -	\$ -
Vermont	\$ 11,039	\$ 11,132	\$ 11,939	7.3%	2.30	8.2%	\$ 236	\$ 419	\$ 429
Virginia	\$ 5,427	\$ 6,550	\$ 7,770	18.6%	1.50	43.2%	\$ 8	\$ 67	\$ 67
Washington	\$ 2,404	\$ 3,150	\$ 3,427	8.8%	0.66	42.6%	\$ -	\$ -	\$ -
West Virginia	\$ 5,121	\$ 5,766	\$ 6,051	4.9%	1.17	18.2%	\$ 791	\$ 693	\$ 676
Wisconsin	\$ 4,110	\$ 4,260	\$ 4,732	11.1%	0.91	15.2%	\$ -	\$ -	\$ -
Wyoming	\$ 2,846	\$ 2,088	\$ 2,253	7.9%	0.43	-20.8%	\$ -	\$ -	\$ -
US	\$ 4,359	\$ 4,793	\$ 5,189	8.3%		19.1%	\$ 36	\$ 50	\$ 52

Notes:

1) Net Tuition Revenue is calculated by taking the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. Net tuition revenue used for capital debt service is included in the net tuition revenue figures above.

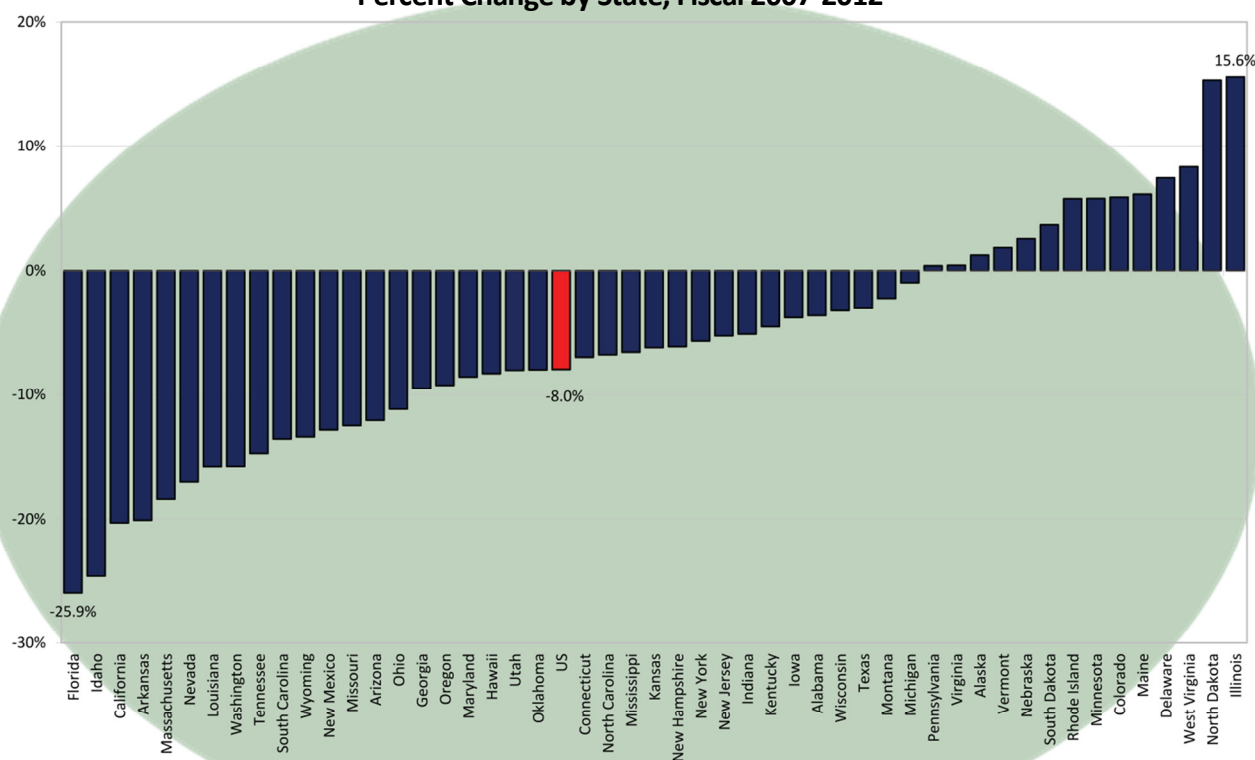
2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA). The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

Source: State Higher Education Executive Officers

Figure 8 (and the accompanying data in Table 7) shows the percent change by state in total educational revenue per FTE in public higher education from 2007 to 2012. Total revenue per FTE in 2012 is 1.7 percent lower than in 2011 and 8.0 percent lower than in 2007 (see Table 7), which is a reflection of the growing student share of total educational revenue.

- Fourteen states increased total educational revenue per student between 2007 and 2012.
- In 36 states, total educational revenue per FTE decreased. Despite increases in tuition revenue, public higher education has less total revenue per student than in 2007 in these states.
- The U.S. average showed an 8.0 percent decrease in total educational revenue per FTE from 2007 to 2012.

Figure 8
Total Educational Revenue per FTE
Percent Change by State, Fiscal 2007-2012



Note: Dollars adjusted by 2012 HECA, Cost of Living Adjustment, and Enrollment Mix; total educational revenue excludes net tuition revenue used for capital debt service.

Source: State Higher Education Executive Officers

Table 7
Total Educational Revenue per FTE (Constant Adjusted 2012 Dollars)

	FY 2007	FY 2011	FY 2012	1 Year % Change	FY 2012 Index to US Average	5 Year % Change
Alabama	\$ 14,302	\$ 13,837	\$ 13,785	-0.4%	1.25	-3.6%
Alaska	\$ 16,254	\$ 16,433	\$ 16,454	0.1%	1.49	1.2%
Arizona	\$ 10,661	\$ 9,939	\$ 9,375	-5.7%	0.85	-12.1%
Arkansas	\$ 12,013	\$ 11,455	\$ 9,600	-16.2%	0.87	-20.1%
California	\$ 11,093	\$ 9,229	\$ 8,842	-4.2%	0.80	-20.3%
Colorado	\$ 8,236	\$ 8,996	\$ 8,722	-3.0%	0.79	5.9%
Connecticut	\$ 15,068	\$ 14,868	\$ 14,016	-5.7%	1.27	-7.0%
Delaware	\$ 15,743	\$ 15,639	\$ 16,913	8.1%	1.53	7.4%
Florida	\$ 11,091	\$ 8,955	\$ 8,213	-8.3%	0.74	-25.9%
Georgia	\$ 11,604	\$ 10,304	\$ 10,501	1.9%	0.95	-9.5%
Hawaii	\$ 11,393	\$ 10,411	\$ 10,446	0.3%	0.95	-8.3%
Idaho	\$ 11,921	\$ 9,701	\$ 8,990	-7.3%	0.81	-24.6%
Illinois	\$ 11,123	\$ 12,029	\$ 12,855	6.9%	1.17	15.6%
Indiana	\$ 10,955	\$ 10,114	\$ 10,396	2.8%	0.94	-5.1%
Iowa	\$ 11,899	\$ 11,164	\$ 11,449	2.6%	1.04	-3.8%
Kansas	\$ 9,928	\$ 9,544	\$ 9,313	-2.4%	0.84	-6.2%
Kentucky	\$ 13,497	\$ 13,071	\$ 12,886	-1.4%	1.17	-4.5%
Louisiana	\$ 10,847	\$ 10,171	\$ 9,138	-10.2%	0.83	-15.8%
Maine	\$ 13,282	\$ 14,160	\$ 14,097	-0.4%	1.28	6.1%
Maryland	\$ 15,232	\$ 14,148	\$ 13,924	-1.6%	1.26	-8.6%
Massachusetts	\$ 12,546	\$ 11,045	\$ 10,238	-7.3%	0.93	-18.4%
Michigan	\$ 13,275	\$ 13,352	\$ 13,148	-1.5%	1.19	-1.0%
Minnesota	\$ 11,528	\$ 12,321	\$ 12,196	-1.0%	1.11	5.8%
Mississippi	\$ 12,270	\$ 11,941	\$ 11,464	-4.0%	1.04	-6.6%
Missouri	\$ 11,278	\$ 9,895	\$ 9,870	-0.3%	0.89	-12.5%
Montana	\$ 9,041	\$ 8,979	\$ 8,841	-1.5%	0.80	-2.2%
Nebraska	\$ 11,129	\$ 10,634	\$ 11,410	7.3%	1.03	2.5%
Nevada	\$ 12,571	\$ 10,778	\$ 10,430	-3.2%	0.95	-17.0%
New Hampshire	\$ 10,853	\$ 10,760	\$ 10,189	-5.3%	0.92	-6.1%
New Jersey	\$ 14,061	\$ 13,583	\$ 13,322	-1.9%	1.21	-5.3%
New Mexico	\$ 11,040	\$ 9,920	\$ 9,623	-3.0%	0.87	-12.8%
New York	\$ 12,564	\$ 12,191	\$ 11,852	-2.8%	1.07	-5.7%
North Carolina	\$ 13,106	\$ 11,708	\$ 12,217	4.4%	1.11	-6.8%
North Dakota	\$ 11,781	\$ 12,639	\$ 13,585	7.5%	1.23	15.3%
Ohio	\$ 10,927	\$ 9,815	\$ 9,706	-1.1%	0.88	-11.2%
Oklahoma	\$ 12,893	\$ 12,183	\$ 11,861	-2.6%	1.07	-8.0%
Oregon	\$ 11,004	\$ 10,147	\$ 9,985	-1.6%	0.90	-9.3%
Pennsylvania	\$ 12,815	\$ 13,217	\$ 12,865	-2.7%	1.17	0.4%
Rhode Island	\$ 14,400	\$ 14,491	\$ 15,231	5.1%	1.38	5.8%
South Carolina	\$ 13,363	\$ 10,632	\$ 11,551	8.6%	1.05	-13.6%
South Dakota	\$ 10,316	\$ 10,587	\$ 10,699	1.1%	0.97	3.7%
Tennessee	\$ 12,082	\$ 11,249	\$ 10,305	-8.4%	0.93	-14.7%
Texas	\$ 13,065	\$ 12,884	\$ 12,678	-1.6%	1.15	-3.0%
Utah	\$ 9,966	\$ 9,291	\$ 9,165	-1.4%	0.83	-8.0%
Vermont	\$ 13,772	\$ 13,358	\$ 14,023	5.0%	1.27	1.8%
Virginia	\$ 11,924	\$ 11,806	\$ 11,975	1.4%	1.09	0.4%
Washington	\$ 9,749	\$ 8,726	\$ 8,215	-5.9%	0.74	-15.7%
West Virginia	\$ 10,109	\$ 10,669	\$ 10,950	2.6%	0.99	8.3%
Wisconsin	\$ 10,716	\$ 10,563	\$ 10,371	-1.8%	0.94	-3.2%
Wyoming	\$ 18,889	\$ 18,317	\$ 16,359	-10.7%	1.48	-13.4%
US	\$ 11,989	\$ 11,226	\$ 11,034	-1.7%		-8.0%

Notes:

1) Total educational revenue is the sum of educational appropriations and net tuition excluding net tuition revenue used for capital debt service.

2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA). The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

Source: State Higher Education Executive Officers

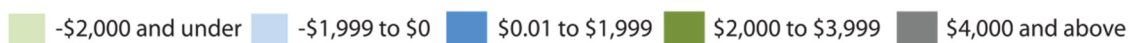
Figure 9 illustrates the extent to which educational appropriations per FTE in 2012 are above or below the national average and whether, in comparison to other states, the current level of funding has increased over the past 25 years. A state's color represents the difference between the state's educational appropriations per FTE and the national educational appropriations per FTE in-2012. States with striations (stripes) represent cases where per FTE education appropriations in 2012 have grown in comparison to the national average over the last 25 years. These states may be either below or above the national average, but support per student has become comparatively higher.

- In 19 states, the educational appropriations per FTE are higher than the national educational appropriations per FTE in 2012. Educational appropriations in 14 of these states are no more than \$2,000 above the U.S. average, three states are between \$2,001 and \$4,000 above the U.S. average, and two states are more than \$4,000 over the U.S. average in 2012.
- Of the 31 states with educational appropriations per FTE below the U.S. average in 2012, 24 states are between \$1 and \$2,000 below the U.S. average, while 7 states were more than \$2,000 below the U.S. average.
- In 21 states, the education appropriations per FTE were higher in FY 2012 than their historic average, an indication that state support has grown relative to the national average over time. The remaining states have had no change or have decreased in comparison to others.

Figure 10 illustrates the extent to which per FTE total educational revenue by state is above or below the national average, and the direction of the long-term trend. A state's color represents the average difference between the state's total educational revenue per FTE and the national total educational revenue per FTE in 2012. States with striations (stripes) represent cases where per FTE total educational revenue in 2012 has grown in comparison to the national average over the last 25 years. These states may be either below or above the national average, but support per student has become comparatively higher.

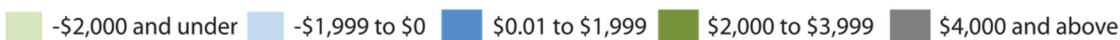
- In 23 states, the total educational revenue per FTE is higher than the U.S. average in 2012. Total educational revenue in 20 of these states is no more than \$2,000 above the U.S. average, one state is between \$2,001 and \$4,000 above the U.S. average, and two states are more than \$4,000 over the U.S. average each year.
- Of the 27 states below the U.S. average in per FTE total educational revenue, 23 states are between \$1 and \$2,000 below the U.S. average, while four states are more than \$2,000 below the U.S. average over the last 25 years
- Fifteen states had higher total educational revenue per FTE in FY 2012 than they had over the last 25 years when compared to the U.S. average. The remaining states have had no change or have decreased in comparison to others.

Educational Appropriations per FTE State Differences from U.S. Average Fiscal 2012



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

Total Educational Revenue per FTE
State Differences from U.S. Average Fiscal 2012

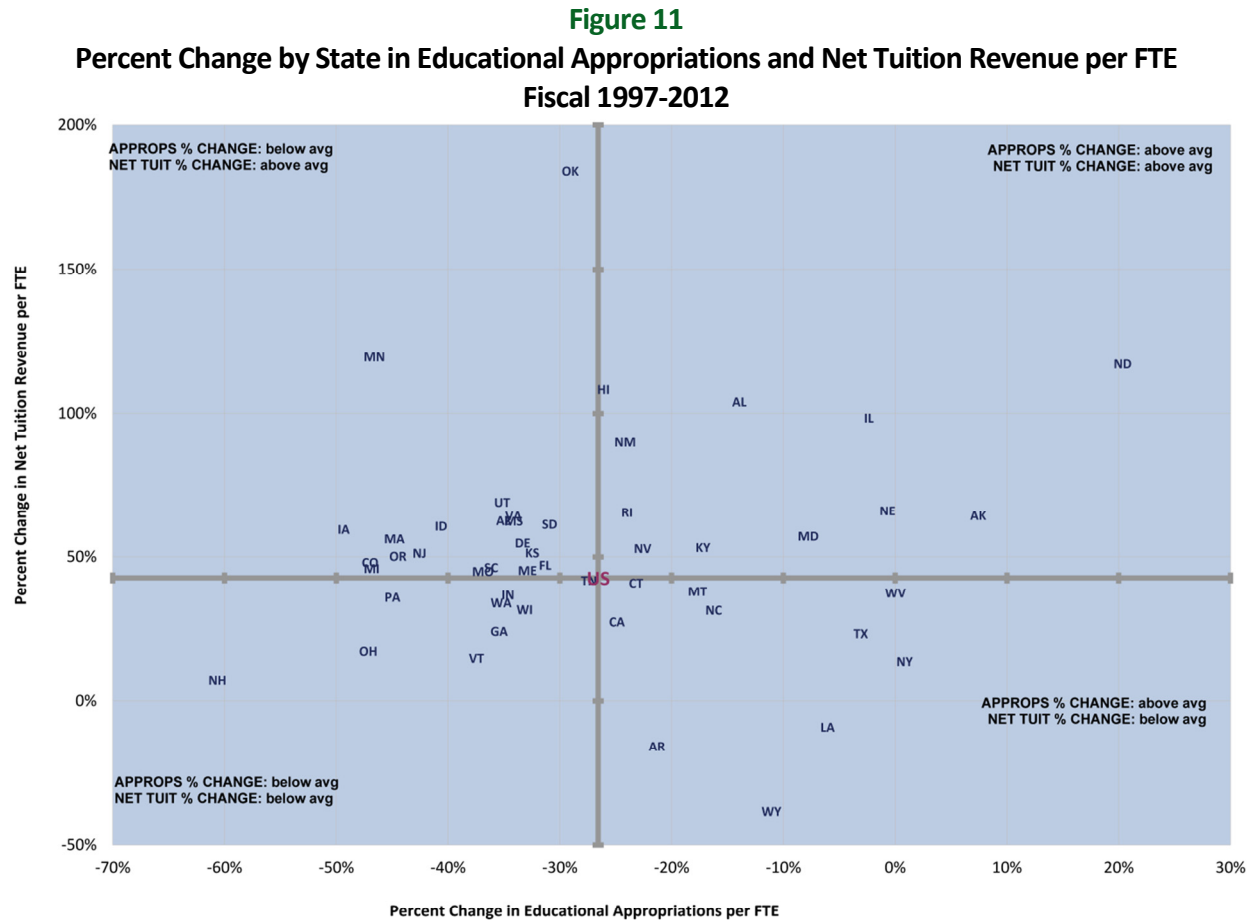


Comparing States on Two Dimensions

This section provides figures in which SHEF data are plotted along two dimensions in order to compare states with respect to two trends simultaneously. For example, analysts and policymakers might want to know not just where a state stands relative to others in terms of higher education support, but whether the state is gaining or losing over time relative to others.

Figure 11 displays the rate of change in the two primary components of educational revenue per FTE—educational appropriations and net tuition. Data on the horizontal axis indicate the extent to which educational appropriations grew or declined in constant dollars from 1997 to 2012. The vertical axis indicates the percentage change in net tuition revenue over the same period.

- States in the upper right quadrant exceeded the national average in both educational appropriations and net tuition revenue changes.
- States in the lower right quadrant exceeded the national average in educational appropriations changes, but lagged the national average in net tuition revenue changes.
- States in the lower left quadrant lagged the national average in both educational appropriations and tuition revenue changes.
- States in the upper left quadrant lagged the national average in educational appropriations changes, but exceeded the national average in net tuition changes.



Note: Figures are adjusted for inflation, public system enrollment mix, and state cost of living.

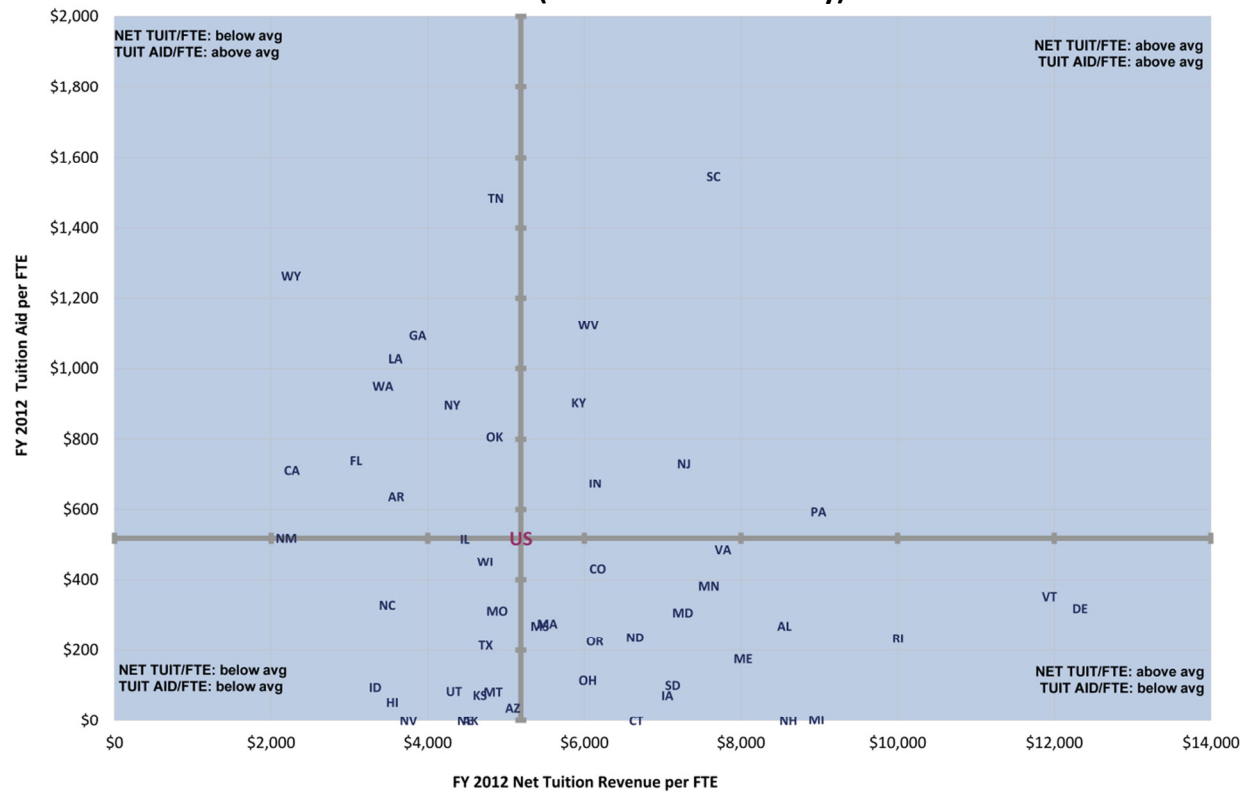
Source: State Higher Education Executive Officers

Many states provide funding for student financial aid programs in order to help offset the cost of tuition. In *Figure 12*, points along the horizontal axis represent 2010 net tuition revenue per FTE for each state. Ordering along the vertical axis reflects per student state funding intended to help students pay public institution tuition during 2012.

- States in the upper right quadrant exceeded the national average in both net tuition revenue and tuition aid.
- States in the lower right quadrant exceeded the national average in net tuition revenue, but fell below the national average in tuition aid.
- States in the lower left quadrant lagged the national average in both net tuition revenue and tuition aid.
- States in the upper left quadrant lagged the national average in net tuition, and exceeded the national average in tuition aid.

Figure 12

**Net Tuition Revenue per FTE and State-Funded Tuition Aid per FTE by State,
Fiscal 2012 (Public Institutions Only)**



Note: Figures are adjusted for inflation, public system enrollment mix, and state cost of living.

Source: State Higher Education Executive Officers

State Wealth, Taxes, and Allocations for Higher Education

Within each state, policies and decisions about the financing of higher education are made in the context of prevailing economic conditions, tax structures, and competing budgetary priorities. Within this context, state policymakers face challenging questions including:

- What revenue is needed to support important public services?
- What level of taxation will generate that revenue without impairing economic productivity or individual opportunities?
- What combination of public services, spending, and tax policy is most likely to enhance economic growth, future assets, and the quality of life?
- What should the spending priorities be for different public services and investments?

Opinions vary widely about a host of issues concerning taxes, public services, and public investments. Differences of opinion and ideology combine with conditions in the economy and demography to affect state taxing and spending decisions. As these conditions change, policymakers reevaluate taxation and spending policies.

No single standard exists to evaluate public policy decisions with respect to funding for higher education. Relevant, comparative information about states can, however, help inform higher education financing decisions. This section explores several types of comparative data and indicators, including relative state and personal wealth, tax capacity and effort, and comparative allocations to higher education.⁶

Nationally, effective state and local tax rates increased slightly over the last decade. As shown in *Table 8*, based on a combination of federal government data sources:

- Aggregate state wealth (total taxable resources) per capita increased 27.6 percent from 2000 to 2010, from \$39,939 to \$50,974. The effects of the 2008 recession are evident, however, in 2009 and 2010 numbers. Total taxable resources per capita reached a high of \$53,612 in 2007, declining 1.0 percent to \$53,071 in 2008 and another 5.7 percent to \$50,051 in 2009. 2010 total taxable resources rebounded 1.8 percent in 2010 to \$50,974.
- Total state and local tax revenues per capita increased 32.7 percent from \$3,086 in 2000 to \$4,096 in 2010, but declined from a high of \$4,362 in 2008.
- As a result, the national aggregate effective state and local tax rate (tax revenue as a percentage of state wealth) increased from 7.73 percent to 8.04 percent over this period.

Also based on aggregate, national data, the allocation of the available state revenue to higher education fluctuated somewhat between 2000 and 2010. Of total state and local revenues (including lottery proceeds), the allocation to higher education ranged from 6.4 percent to 7.6 percent during this period. In 2010, the most recent year available, the percentage allocation to higher education was 6.8 percent, slightly lower than in 2009 but higher than the preceding four years. From 2000 to 2003, the percent allocated to higher education ranged from 7.2 percent to 7.6 percent.

⁶ Part of this section draws on previous work by Kent Halstead to assemble data and develop indicators for higher education support per capita and relative to wealth (personal income), state tax capacity, and tax effort.

Table 8
State Wealth, Tax Revenue, Effective Tax Rates, and Higher Education Allocation
U.S., 2000-2010 (Current Unadjusted Dollars)

	Wealth, Revenue, and Tax Rates				Allocation to Higher Education		
	Total Taxable Resources per Capita ¹	State & Local Tax Revenues per Capita ^{2, 3}	Effective Tax Rate ⁴	State & Local Tax			
				Revenues plus Lottery Profits ⁵ (thousands)	State & Local Higher Education Support ⁶ (thousands)	(percent)	
2000	\$ 39,939	\$ 3,086	7.73%	\$ 881,108,058	\$ 63,262,883	7.2%	
2001	\$ 39,727	\$ 3,196	8.05%	\$ 921,556,887	\$ 67,397,538	7.3%	
2002	\$ 40,242	\$ 3,140	7.80%	\$ 915,027,341	\$ 69,881,877	7.6%	
2003	\$ 41,791	\$ 3,111	7.44%	\$ 915,311,067	\$ 69,910,896	7.6%	
2004	\$ 44,642	\$ 3,441	7.71%	\$ 1,020,012,078	\$ 69,029,250	6.8%	
2005	\$ 47,747	\$ 3,700	7.75%	\$ 1,108,355,477	\$ 71,986,664	6.5%	
2006	\$ 50,920	\$ 3,996	7.85%	\$ 1,207,621,567	\$ 76,981,476	6.4%	
2007	\$ 53,612	\$ 4,246	7.92%	\$ 1,295,451,648	\$ 82,677,919	6.4%	
2008	\$ 53,071	\$ 4,362	8.22%	\$ 1,342,709,662	\$ 88,764,860	6.6%	
2009	\$ 50,051	\$ 4,136	8.26%	\$ 1,283,756,839	\$ 87,994,103	6.9%	
2010	\$ 50,974	\$ 4,096	8.04%	\$ 1,282,430,818	\$ 86,961,714	6.8%	
10 Year Change	27.6%	32.7%	4.0%	45.5%	37.5%	-5.6%	

Notes:

1) Total Taxable Resources per Capita: 2002, 2003, 2004 data: U.S. Treasury Department, <http://www.treas.gov/offices/economic-policy/resources/estimates.html> 1993-2001: Compson, Michael. L (March, 2003)

2) State and Local Tax Revenue per Capita: U.S. Census Bureau, <http://www.census.gov/govs/www/estimate.html> and <http://www.census.gov/popest/states/NST-ann-est.html>

3) Local Tax Revenue in 2001 and 2003 are estimates; the following formula was used: FY2001 Local Tax Revenues = $((FY1998Local/FY1998State)+(FY1999Local/FY1999State)+(FY2000Local/FY2000State))/3$ * FY2001State; FY2003 Local Tax Revenues = $((FY1999Local/FY1999State)+(FY2000Local/FY2000State)+(FY2002Local/FY2002State))/3$ * FY2003State

4) Effective Tax Rate = State & Local Tax Revenue per Capita / Total Taxable Resources per Capita.

5) State and local tax revenue data from U.S. Census Bureau; lottery profits data from North American Association of State and Provincial Lotteries.

6) Higher Education Support = State and local tax and nontax support for general operating expenses of public and independent higher education. Includes special purpose appropriations for research-agricultural-medical. Source: State Higher Education Executive Officers

In *Table 9*, state tax revenue per capita, total taxable resources per capita, and the effective tax rates are indexed to the national average in order to indicate the variability across states relative to the national average. Taxable resources per capita vary by more than a factor of two, from a low of \$36,130 per capita to a high of \$77,296 per capita. The U.S. average is \$50,974. Effective tax rates also vary substantially, from a low of 5.1 percent to a high of 12.7 percent, while the U.S. average is 8.04 percent.

Table 10, based on federal data sources, shows two measures of state-by-state support for higher education (per capita and per \$1,000 in personal income) for 2011. Per capita support for higher education averages \$281 nationally and ranges from \$104 in New Hampshire to \$728 in Wyoming. Support for higher education relative to personal income varies from \$2.27 to \$15.20 per \$1,000 of personal income across the states. Nationally, state and local support for higher education per \$1,000 of personal income was \$6.77 in 2011.

These comparative statistics reflect interstate differences in wealth, population characteristics and density, participation rates, the relative size of the public and independent higher education sectors, student mobility, and numerous other factors. Poorer states often lag the national average in per capita support, but exceed the national average in support per thousand dollars of personal income. Similarly, sparsely populated states often exceed the national average in both per capita support and per thousand dollars of personal income.

Table 10 also provides an analysis of state support as a percentage of state budgets in 2010. While such statistics show relative investments in higher education, they do not necessarily indicate the relative "priority" or valuation of higher education by each state. They do reflect the different paths states have taken in financing a set of public purposes as they assess need, urgency, and financing options. As previously discussed, tuition revenue frequently (but not universally) has increased when state and local sources of support have not kept pace with enrollment growth and inflation. The data in *Table 8*, indicating an increase in the effective state tax rate combined with the pressures created by growing higher education enrollment, increasing demands for elementary and secondary funding, rising Medicaid costs, and other factors, help explain the stress on state budgets and policymakers.

Pursuing the goals of assuring higher education access, determining appropriate levels of support, and sorting out "who pays, who benefits," in the context of state needs, resources, and other policy objectives, remains a complex task in every state.

Table 9

Tax Revenues, Taxable Resources, and Effective Tax Rates, by State, Fiscal 2010

State	Actual Tax Revenues (ATR) Per Capita		Total Taxable Resources (TTR) Per Capita		Effective Tax Rate (ATR/TTR)	
	Dollars	Index	Dollars	Index	Tax Rate	Index
Alabama	2,776	0.678	39,347	0.772	7.1%	0.878
Alaska	8,636	2.108	68,261	1.339	12.7%	1.574
Arizona	3,061	0.747	42,245	0.829	7.2%	0.902
Arkansas	3,249	0.793	39,184	0.769	8.3%	1.032
California	4,623	1.129	53,817	1.056	8.6%	1.069
Colorado	4,061	0.991	54,228	1.064	7.5%	0.932
Connecticut	5,989	1.462	73,312	1.438	8.2%	1.017
Delaware	3,979	0.971	77,296	1.516	5.1%	0.641
Florida	3,495	0.853	46,287	0.908	7.6%	0.940
Georgia	3,101	0.757	44,375	0.871	7.0%	0.869
Hawaii	4,841	1.182	51,107	1.003	9.5%	1.179
Idaho	2,763	0.674	39,484	0.775	7.0%	0.871
Illinois	4,182	1.021	54,865	1.076	7.6%	0.948
Indiana	3,595	0.878	45,110	0.885	8.0%	0.992
Iowa	3,917	0.956	50,592	0.992	7.7%	0.964
Kansas	3,992	0.975	50,110	0.983	8.0%	0.991
Kentucky	3,167	0.773	40,147	0.788	7.9%	0.982
Louisiana	3,554	0.868	53,914	1.058	6.6%	0.820
Maine	4,398	1.074	42,501	0.834	10.3%	1.288
Maryland	4,851	1.184	61,515	1.207	7.9%	0.981
Massachusetts	5,106	1.247	63,417	1.244	8.1%	1.002
Michigan	3,615	0.883	40,414	0.793	8.9%	1.113
Minnesota	4,587	1.120	54,911	1.077	8.4%	1.040
Mississippi	3,021	0.737	36,130	0.709	8.4%	1.040
Missouri	3,164	0.772	45,038	0.884	7.0%	0.874
Montana	3,248	0.793	41,327	0.811	7.9%	0.978
Nebraska	4,027	0.983	53,780	1.055	7.5%	0.932
Nevada	3,748	0.915	51,806	1.016	7.2%	0.900
New Hampshire	3,812	0.931	56,586	1.110	6.7%	0.838
New Jersey	5,807	1.418	64,658	1.268	9.0%	1.118
New Mexico	3,170	0.774	40,312	0.791	7.9%	0.978
New York	7,024	1.715	63,885	1.253	11.0%	1.368
North Carolina	3,421	0.835	46,772	0.918	7.3%	0.910
North Dakota	5,156	1.259	56,986	1.118	9.0%	1.126
Ohio	3,762	0.918	43,918	0.862	8.6%	1.066
Oklahoma	3,032	0.740	43,446	0.852	7.0%	0.868
Oregon	3,419	0.835	52,115	1.022	6.6%	0.817
Pennsylvania	4,144	1.012	48,958	0.960	8.5%	1.053
Rhode Island	4,571	1.116	53,560	1.051	8.5%	1.062
South Carolina	2,838	0.693	38,379	0.753	7.4%	0.920
South Dakota	3,164	0.772	52,843	1.037	6.0%	0.745
Tennessee	2,870	0.701	43,448	0.852	6.6%	0.822
Texas	3,425	0.836	51,543	1.011	6.6%	0.827
Utah	2,998	0.732	45,468	0.892	6.6%	0.821
Vermont	4,719	1.152	45,835	0.899	10.3%	1.281
Virginia	3,885	0.949	58,967	1.157	6.6%	0.820
Washington	3,971	0.969	54,546	1.070	7.3%	0.906
West Virginia	3,490	0.852	37,977	0.745	9.2%	1.143
Wisconsin	4,285	1.046	47,289	0.928	9.1%	1.128
Wyoming	6,164	1.505	70,848	1.390	8.7%	1.083
U.S.	\$ 4,096	1.000	50,974	1.000	8.04%	1.000

Notes:

1) Population and tax revenues data from U.S. Census Bureau: www.census.gov/govs/www/estimate.html2) Total Taxable Resources per capita from U.S. Treasury Department: www.treas.gov/offices/economic-policy/resources/estimates.html3) Actual State + Local Tax Revenues by State, Fiscal 2009: www.census.gov/govs/www/estimate.html

Table 10

Perspectives on State and Local Government Higher Education Funding Effort by State

State	FISCAL 2011		FISCAL 2011		FISCAL 2010		
	Higher Education Support ¹ Per Capita ² (FY11)	Indexed to U.S. Average	Higher Education Support ¹ Per \$1000 of Personal Income ² (FY11)	Indexed to U.S. Average	Tax Revenues and Lottery Profits ³ (thousands FY10)	Higher Education Support ¹ (thousands FY10)	Allocation to Higher Education
Alabama	322	1.15	9.23	1.36	13,284,897	1,544,766	11.6%
Alaska	475	1.69	10.39	1.53	6,167,527	334,197	5.4%
Arizona	282	1.00	8.05	1.19	19,775,549	1,891,575	9.6%
Arkansas	318	1.13	9.42	1.39	9,576,333	914,683	9.6%
California	350	1.24	8.02	1.18	173,684,896	12,019,048	6.9%
Colorado	162	0.57	3.67	0.54	20,609,914	899,952	4.4%
Connecticut	301	1.07	5.19	0.77	21,699,189	1,097,950	5.1%
Delaware	234	0.83	5.65	0.83	3,855,774	242,519	6.3%
Florida	216	0.77	5.45	0.80	67,085,383	3,958,274	5.9%
Georgia	301	1.07	8.37	1.24	30,997,298	2,963,305	9.6%
Hawaii	372	1.32	8.67	1.28	6,599,420	555,279	8.4%
Idaho	233	0.83	7.10	1.05	4,376,863	391,564	8.9%
Illinois	317	1.13	7.26	1.07	54,359,503	4,194,152	7.7%
Indiana	240	0.85	6.73	0.99	23,522,991	1,595,424	6.8%
Iowa	267	0.95	6.48	0.96	12,006,821	917,341	7.6%
Kansas	342	1.22	8.37	1.24	11,483,678	982,537	8.6%
Kentucky	299	1.06	8.79	1.30	13,983,134	1,302,510	9.3%
Louisiana	346	1.23	8.97	1.32	16,286,147	1,493,620	9.2%
Maine	208	0.74	5.44	0.80	5,890,527	270,024	4.6%
Maryland	332	1.18	6.55	0.97	28,576,754	1,928,928	6.7%
Massachusetts	184	0.66	3.45	0.51	34,378,880	1,208,726	3.5%
Michigan	242	0.86	6.68	0.99	36,409,834	2,471,351	6.8%
Minnesota	258	0.92	5.80	0.86	24,484,597	1,563,382	6.4%
Mississippi	359	1.28	11.22	1.66	8,971,307	1,120,041	12.5%
Missouri	190	0.68	5.00	0.74	19,225,773	1,223,485	6.4%
Montana	216	0.77	5.99	0.88	3,229,470	214,769	6.7%
Nebraska	420	1.49	9.89	1.46	7,401,439	760,923	10.3%
Nevada	202	0.72	5.47	0.81	10,135,060	581,264	5.7%
New Hampshire	104	0.37	2.27	0.34	5,085,762	144,611	2.8%
New Jersey	256	0.91	4.88	0.72	52,022,889	2,296,556	4.4%
New Mexico	461	1.64	13.50	1.99	6,591,724	1,008,921	15.3%
New York	300	1.07	5.87	0.87	138,903,779	5,618,194	4.0%
North Carolina	442	1.57	12.26	1.81	33,139,133	4,104,365	12.4%
North Dakota	456	1.62	9.65	1.42	3,484,798	311,677	8.9%
Ohio	212	0.76	5.62	0.83	44,135,589	2,427,238	5.5%
Oklahoma	302	1.08	8.03	1.19	11,469,323	1,187,510	10.4%
Oregon	218	0.78	5.82	0.86	13,641,708	862,862	6.3%
Pennsylvania	174	0.62	4.12	0.61	53,621,821	2,240,085	4.2%
Rhode Island	163	0.58	3.71	0.55	5,155,733	163,174	3.2%
South Carolina	212	0.75	6.35	0.94	13,432,477	1,088,638	8.1%
South Dakota	239	0.85	5.40	0.80	2,700,746	198,653	7.4%
Tennessee	259	0.92	7.09	1.05	18,532,687	1,655,348	8.9%
Texas	299	1.06	7.44	1.10	87,602,344	8,106,871	9.3%
Utah	261	0.93	7.78	1.15	8,321,478	745,139	9.0%
Vermont	150	0.54	3.62	0.53	2,975,537	93,255	3.1%
Virginia	238	0.85	5.15	0.76	31,606,036	1,829,674	5.8%
Washington	233	0.83	5.32	0.78	26,894,582	1,673,104	6.2%
West Virginia	288	1.03	8.63	1.27	7,040,036	523,261	7.4%
Wisconsin	315	1.12	7.95	1.17	24,533,966	1,699,281	6.9%
Wyoming	728	2.59	15.20	2.24	3,479,712	341,705	9.8%
United States	\$281	1.00	\$6.77	1.00	\$ 1,282,430,818	\$ 86,961,714	6.8%

Notes:

1) Higher Education Support = State and local tax and nontax support for public and independent higher education. Includes special purpose appropriations for research-agricultural-medical.

Source: State Higher Education Executive Officers.

2) Population and personal income data from U.S. Census Bureau and Bureau of Economic Analysis.

3) State and local tax revenues data from U.S. Census Bureau; lottery profits data from North American Association of State and Provincial Lotteries.

Conclusion

Since the beginning of the 21st century, higher education enrollment has grown faster than any decade since the 1960s. Simultaneously, state and local funding for higher education stagnated twice due to recessions. From 2002 to 2004, total state and local funding hovered around \$70 billion. Then over the four years 2005 to 2008, state and local support for public higher education grew to \$88.8 billion, partially restoring the per-student support eroded by the 2001 recession. This four-year recovery abruptly ended when, in 2008, the nation suffered the worst recession since the Great Depression. From 2008 to 2011, enrollment grew by an additional 13.2 percent; but state and local support, even with the assistance of the federal economic stimulus funds, stagnated, declining modestly for the nation as a whole, and falling dramatically in some states.

This report has summarized enrollment and funding data for 2012. State and local support declined, and the federal economic stimulus funds were largely no longer available to offset funding cuts. Enrollment stabilized in 2012, and constant dollar state and local support per student declined more than 9 percent from 2011. Even though tuition increases offset reductions in state and local support during the downturn, total educational revenue per student was 8.0 percent lower in 2012 than it was in 2007. Institutions have stretched to accommodate enrollment demand, but in some states students have been turned away due to inadequate resources. Students and their families have paid higher tuition, but rising costs and pressures on state student aid programs have likely deterred or reduced some enrollment. Total revenue per student has fallen in nearly every state.

In the past decade these two recessions and the larger macro-economic challenges facing the United States have created what some are calling the “new normal” for state funding for public higher education and other public services. In the “new normal,” retirement and health care costs simultaneously drive up the cost of higher education, and compete with education for limited public resources. The “new normal” no longer expects to see a recovery of state support for higher education such as occurred repeatedly in the last half of the 20th century. The “new normal” expects students and their families to continue to make increasingly greater financial sacrifices in order to complete a postsecondary education. The “new normal” expects schools and colleges to find ways of increasing productivity and absorb ever-larger budget cuts, while increasing degree production without, we hope, compromising quality.

One cannot responsibly ignore either the financial realities outlined in this report or the larger economic challenges facing the American people. Somehow the nation and its educators must come to grips with these realities and create effective responses to them. Colleges and universities must find ways to reduce student attrition, the cost of instruction, and time to a degree, while improving instruction and increasing the numbers of students who graduate ready to be productive citizens. Parents, students, institutions, and states must make tough decisions about priorities—what investments are essential for a better future and where can we and should we reduce spending on non-essentials in order to secure what is essential?

But avoiding bad judgments can be difficult when facing tough choices. Institutions may cut too many quality corners or compete with each other to raise revenue from “new” sources (such as out-of-state or international students) rather than make difficult decisions about priorities or the extra effort to create and effectively implement innovative practices. Policy makers may overestimate how many students can be well-educated within existing resources or make unrealistic assumptions about the potential for technology and new delivery methods to rapidly become a panacea offsetting the long-term negative effects of budget cuts or tuition increases on access to higher education and the quality of our workforce. Or the better-off public may be lulled into thinking that the American economy can get by with limited opportunity and 20th century standards for educational attainment, so long as their own families are well-educated.

The educational and economic edge the United States once enjoyed in comparison to other nations is eroding rapidly. Sound judgments about priorities and an extra measure of commitment and creativity are needed in order to regain our educational and economic momentum.

The data and analysis of this and future SHEF reports are intended to help higher education leaders and state policymakers focus on how discrete, year-to-year decisions fit into broader patterns of change over time, and to help them make decisions in the coming years that will meet the longer-term needs of the American people.

Technical Paper A

The Higher Education Cost Adjustment: A Proposed Tool for Assessing Inflation in Higher Education Costs

Introduction

Prices charged to students, the total cost of higher education, and the effect of inflation are all important issues for the public, state and federal governments, and colleges and universities. This brief technical paper discusses two relevant dimensions of inflation in higher education—the consumer and the provider perspectives—and describes a tool to benchmark the inflation experienced by providers, colleges, and universities.

The Consumer Perspective

The student, parent, or student-aid provider most often views higher education prices compared to how much consumers pay for other goods and services. The Consumer Price Index for Urban Consumers (CPI-U) is most often used for such comparisons.

The CPI-U "market basket" consists of: housing (42 percent of the index), transportation (19 percent), food and beverage (18 percent), apparel and upkeep (7 percent), medical care (5 percent), entertainment (4 percent), and other goods and services (5 percent). To calculate the CPI-U, the Bureau of Labor Statistics measures average changes in the prices paid for these goods and services in 27 local areas.

Prices for different goods and services generally change faster or slower than the average rate of increase in the CPI-U. Incomes also grow or decline at different rates. Consumers notice when prices increase and they become concerned when prices for important goods and services grow faster than their incomes. Prices for higher education and health care, for example, have grown faster than overall consumer prices over the past 15 years. While consumer prices, as measured by CPI-U, grew by 43 percent between 1995 and 2010, the cost of medical care grew by 85 percent⁷, and enrollment-weighted tuition and fees for four-year public universities grew by 175 percent.⁸ U.S. income per capita grew by 85 percent⁹ during the same period—more than prices in general, but less than the health care and college tuition price increases.

In view of these facts, it is not surprising that college prices are attracting national attention. Colleges and universities are certainly aware of the issues and of the increase in their prices. At the same time, however, they face growth in the prices that they pay.

The Provider Perspective

The CPI-U is based on goods and services purchased by the typical urban consumer. Colleges and universities spend their funds on different things—mostly (about 75 percent) on salaries and benefits for faculty and staff; and lesser amounts on utilities, supplies, books and library materials, and computing. Trends in the costs of these items don't necessarily run parallel to the average price increases of the goods and services tracked by the CPI-U.

Kent Halstead developed the Higher Education Price Index (HEPI) to track changes in the prices paid by colleges and universities. This index, which tracks price changes since 1961, is based on a 1972 market basket of expenditures for

⁷ "Economic Report of the President." February 2007. Appendix B, table B-60: "Consumer Price Indexes for Major Expenditure Classes" (www.gpoaccess.gov/eop/2007/B60.xls).

⁸ Source: Washington Higher Education Coordinating Board

⁹ Source: Bureau of Economic Analysis

colleges and universities. To estimate price changes for components in this market basket, Halstead used trends in faculty salaries collected by the American Association of University Professors (AAUP), and a number of price indices generated by federal agencies.

Dr. Halstead last updated the HEPI in 2001, using regression analysis to estimate price increases for more recent years. Since 2005, Commonfund Institute has maintained the HEPI project, continuing to provide yearly updates to the data based on a regression analysis.

The HEPI has made an important contribution to understanding the cost increases borne by colleges and universities. Over the past years, the State Higher Education Executive Officers association (SHEEO) and chief fiscal officers of higher education agencies discussed the feasibility and desirability of a fresh analysis of higher education cost inflation and reached the following conclusions:

- While the HEPI has been useful, it has not been universally accepted because it is a privately developed analysis, and one of its main components, average faculty salaries, has been criticized as self-referential.
- The HEPI has not diverged dramatically from other inflation indices over short time periods. Hence, many policymakers reference indices such as the CPI-U in annual budget deliberations, especially in budgeting for projected price increases.
- It would be costly to update, refine, and maintain the HEPI in such a way that would meet professional standards for price indexing. The most labor-intensive work would be in refreshing the data in the higher education market basket.

For these reasons, SHEEO decided not to develop a successor to the HEPI. But, over an extended period of time, differences between the market basket of higher education cost increases and the CPI market basket cost increases are material. The most fundamental problem is that the largest expenditure for higher education is salaries for educated people. In the past 20 years, such people have demanded increasingly higher compensation in both the private and public sectors, including colleges and universities.

SHEEO developed the Higher Education Cost Adjustment (HECA) as an alternative to the CPI-U and the HEPI for estimating inflation in the costs paid by colleges and universities. HECA is constructed from two federally developed and maintained price indices—the Employment Cost Index (ECI) and the Gross Domestic Product Implicit Price Deflator (GDP IPD). The ECI reflects employer compensation costs including wages, salaries, and benefits.¹⁰ The GDP IPD reflects general price inflation in the U.S. economy.¹¹ The HECA has the following advantages:

1. It is constructed from measures of inflation in the broader U.S. economy;
2. It is simple, straightforward to calculate, and transparent; and
3. The underlying indices are developed and routinely updated by the Bureaus of Labor Statistics and Economic Analysis.

Because the best available data suggest that faculty and staff salaries account for roughly 75 percent of college and university expenditures, the HECA is based on a market basket with two components—personnel costs (75 percent of the index), and non-personnel costs (25 percent). SHEEO constructed the HECA based on the growth of the ECI (for 75 percent of costs) and the growth of the GDP IPD (for 25 percent of costs).

¹⁰ The Employment Cost Index (ECI) for White Collar Workers (excluding sales occupations), which has traditionally been used in SHEF, was discontinued in March 2006. The ECI for management, professional, and related occupations (not seasonally adjusted) is the closest to the discontinued index and is now used in SHEF. This index is available back to 2001, and historical SHEF data have been adjusted to represent this new series.

¹¹ Gross Domestic Product (GDP) is the total market value of all final goods and services produced in the country in a given year. It is equal to total consumer, investment, and government spending, plus the value of exports, minus the value of imports. The GDP Implicit Price Deflator is current dollar GDP divided by constant dollar GDP. This ratio is used to account for the effects of inflation by reflecting the change in the prices of the bundle of goods that make up the GDP as well as changes to the bundle itself.

Technical Paper Table 1 displays three indices—the CPI-U, HEPI, and HECA—for the years 1997 to 2012. For comparison purposes, per capita income growth is shown.

Summary of the Indices

Between 1997 and 2012:

- Consumer prices grew by 43 percent;
- Provider prices for higher education grew 53 percent (as estimated by HECA); and
- Provider prices for higher education grew 64 percent (as estimated by HEPI).

Technical Paper Table 1
CPI-U, HEPI, and HECA Indexed to Fiscal Year 2012

Fiscal Year	CPI-U ¹	HECA ²	HEPI ³
1997	70.13	65.22	60.85
1998	71.23	67.09	62.99
1999	72.80	68.90	64.50
2000	75.25	71.52	67.16
2001	77.39	74.37	71.18
2002	78.61	76.63	72.54
2003	80.40	79.15	76.23
2004	82.54	81.83	79.02
2005	85.34	84.59	82.13
2006	88.09	87.33	86.32
2007	90.60	90.51	88.78
2008	94.08	93.23	93.18
2009	93.75	94.73	95.26
2010	95.28	96.18	96.11
2011	98.29	98.24	98.36
2012	100.00	100.00	100.00
% Change			
1997-2012	43%	53%	64%

Note: CPI-U and HEPI are fiscal year (July 1 to June 30). HECA data are Quarter 2 of the calendar year, coinciding with the final quarter of the comparable fiscal year.

Sources:

1) U.S. Bureau of Labor Statistics.

2) SHEEO, from BLS and BEA data.

3) Kent Halstead, Research Associates of Washington, DC.

Technical Paper B

Adjusting for Interstate Differences in Cost of Living and Enrollment Mix

It is difficult to compare interstate higher education unit costs. The analytical tools available are, at best, blunt instruments for measuring differences. Nevertheless, blunt instruments can be better than no instruments at all. This technical paper briefly describes two approaches for assessing the relative significance of two factors—cost of living and the enrollment mix among institutions.

The cost of living varies greatly across the 50 states. The most significant difference is in median housing values. In the 2005 American Community Survey census, median housing value was \$167,500 for the nation, but ranged from \$84,400 to \$477,000 across different regions and states.

Enrollment mix also poses a challenge for interstate financial comparisons. Each level of higher education, from the lowest undergraduate work through doctoral studies, is progressively more expensive. A state or institution with a large proportion of enrollment in graduate programs will normally have a higher cost per FTE than a state or institution with a larger proportion of enrollment in undergraduate and two-year degree programs.

SHEF Adjustments for Cost of Living and Enrollment Mix

The SHEF report provides separate analytical adjustments for differences among the states in the cost of living (COLA: Cost of Living Adjustment) and the mix in enrollment among categories of institutions (EMI: Enrollment Mix Index). The adjustment for interstate cost of living differences is drawn from the Berry index (a study by Berry et al. that provides a single index for each state).¹² While this index does not solve the problem of differing intrastate costs of living, it offers a way to get a rough estimate of these differences for adjusting interstate unit cost data. The range of values extends from 0.88 to 1.22 among the 48 contiguous states in 2003, the most recent year available for this data.

The Berry index does not provide an estimate of cost of living in Alaska and Hawaii, two states with unique characteristics. Alaska is estimated to have a cost of living consistent with the highest cost of living in the contiguous 48 United States. As a result, in the SHEF analysis, the value of 1.22 (the highest value of the 48 contiguous states) is assigned to Alaska. The cost of living in Hawaii is about 30 percent higher than in the 48 contiguous United States. An examination of city-based cost of living adjustment factors resulted in assigning Hawaii a cost of living adjustment factor of 1.35. This is comparable to Boston's ACCRA cost of living adjustment, but lower than Honolulu's adjustment of 1.64. Honolulu's adjustment factor would not be appropriate because, while most of Hawaii's higher education is concentrated there, it is a disproportionately high value.

SHEEO has developed an adjustment for interstate enrollment mix differences based on the proportion of enrollment in each state compared with the national proportions of enrollment by Carnegie Classification for FY 2009 (the most recent finance data available at the time of data collection and analysis). The essential steps are as follows:

¹² Berry, W.D., R.C. Fording, and R.L. Hanson. *Cost of Living Index for the American States, 1960-2003*. (Available at ICPSR Publication-Related Archive, study # 1275 <http://webapp.icpsr.umich.edu/cocoon/ICPSR-STUDY/01275.xml>)

1. Integrated Postsecondary Education Data System (IPEDS) data were used to develop a national average cost per fall FTE for each of the Carnegie Classifications of institutions. This calculation used financial information from FY 2009 and fall 2008 FTE data. In addition, an aggregated national cost per FTE was calculated to be \$12,200. The average national cost per FTE reflects the national enrollment mix among sectors, the most common of which are: Doctoral Research Extensive (\$19,604); Doctoral Research Intensive (\$14,460); Masters Colleges and Universities I (\$12,199); and Associate Colleges (\$8,829).
2. The proportion of each state's FTE in each of the Carnegie Classifications was calculated for fall 2008, and then multiplied by the national average cost per FTE in FY 2009 for each respective classification. For each state, the products for each Classification were summed, which yields the state's enrollment mix unit cost for the year.

If the state has relatively more enrollment in higher cost Carnegie Classifications (e.g., research universities) the enrollment mix unit cost will surpass the aggregated national unit cost. If the state has relatively more enrollment in lower cost Carnegie Classifications (e.g., community colleges) the enrollment mix unit cost will be less than the aggregated national unit cost.

3. The ratio of enrollment mix unit cost to aggregated national unit cost constitutes each state's enrollment mix "index." For example, the enrollment mix index for California in FY 2009 equals 0.913 because California has a large community college system. This calculation illustrates that, if unit costs in each sector were at the national average, the statewide cost per FTE would be lower than the aggregated national unit cost by nine percent.

Each SHEF adjustment is expressed in index values where the national average equals 1.00. Hence, actual expenditures per FTE are divided by the SHEF adjustment in order to obtain the adjusted value. For example, presume that State X has an actual expenditure per FTE of \$8,000. If the cost of living index for State X equals 1.05, its expenditure per FTE, adjusted for differences in the cost of living, would be \$7,619 ($\$8,000 / 1.05$). If State X has an enrollment mix index of 0.98, its expenditure per FTE, adjusted for differences in enrollment mix, would be \$8,163 ($\$8,000 / .98$). When both adjustments are made, State X would have an adjusted expenditure per FTE of \$7,775 ($\$8,000 / 1.05 / .98$).

Technical Paper Table 2 shows the EMI, COLA, and combined EMI and COLA measures for each state. *Technical Paper Table 3* summarizes results for the SHEF adjustments for interstate cost of living and enrollment mix differences among the states. SHEEO welcomes comments on the utility and limitations of these analytical tools and any suggestions for improvement.

Technical Paper Table 2
Enrollment Mix Index and Cost of Living Adjustments by State

	EMI ¹	COLA ²	EMI & COLA Combined
State			
Alabama	0.984	0.902	0.887
Alaska	1.027	1.218	1.250
Arizona	1.119	0.964	1.079
Arkansas	0.924	0.887	0.820
California	0.913	1.090	0.995
Colorado	1.149	1.048	1.203
Connecticut	1.020	1.202	1.226
Delaware	1.255	0.993	1.247
Florida	1.023	0.921	0.942
Georgia	1.011	0.935	0.945
Hawaii	1.109	1.354	1.502
Idaho	1.003	0.957	0.960
Illinois	0.956	1.051	1.004
Indiana	1.142	1.001	1.144
Iowa	1.096	0.995	1.090
Kansas	1.117	0.999	1.115
Kentucky	0.996	0.905	0.901
Louisiana	1.048	0.901	0.945
Maine	0.944	1.091	1.030
Maryland	0.991	0.999	0.989
Massachusetts	0.988	1.218	1.204
Michigan	1.072	1.027	1.101
Minnesota	0.995	1.051	1.046
Mississippi	0.918	0.883	0.810
Missouri	1.055	0.997	1.052
Montana	1.172	0.951	1.115
Nebraska	1.053	1.011	1.065
Nevada	0.949	1.014	0.962
New Hampshire	1.006	1.152	1.159
New Jersey	0.941	1.193	1.123
New Mexico	1.025	0.955	0.979
New York	0.938	1.146	1.075
North Carolina	1.006	0.929	0.935
North Dakota	1.035	1.002	1.037
Ohio	1.073	1.009	1.082
Oklahoma	0.939	0.886	0.833
Oregon	0.995	1.020	1.016
Pennsylvania	1.056	1.068	1.127
Rhode Island	0.969	1.149	1.114
South Carolina	0.991	0.915	0.907
South Dakota	1.029	1.007	1.036
Tennessee	1.029	0.913	0.940
Texas	0.960	0.886	0.850
Utah	1.051	1.007	1.059
Vermont	1.038	1.122	1.164
Virginia	1.038	0.962	0.999
Washington	0.974	1.045	1.018
West Virginia	0.986	0.892	0.879
Wisconsin	1.016	1.031	1.047
Wyoming	0.905	0.966	0.875
U.S.	1.000	1.000	1.000

Notes:

1) Fall 2008 FTE data and FY 2009 financial data from IPEDS are used to produce Enrollment Mix.

2) As of 2003, obtained from Berry, 2003.

Technical Paper Table 3
Impact of Enrollment Mix Index and Cost of Living Adjustments by State

State	Total Educational Revenue per FTE UNADJUSTED		ADJUSTED FOR ENROLLMENT MIX		ADJUSTED FOR COST OF LIVING		ADJUSTED FOR ENROLLMENT & COLA	
	\$/FTE	% of U.S. Avg	\$/FTE	% of U.S. Avg	\$/FTE	% of U.S. Avg	\$/FTE	% of U.S. Avg
Alabama	12,230	111%	12,432	113%	13,562	123%	13,785	125%
Alaska	20,574	186%	20,041	182%	16,891	153%	16,454	149%
Arizona	10,118	92%	9,042	82%	10,490	95%	9,375	85%
Arkansas	7,871	71%	8,516	77%	8,873	80%	9,600	87%
California	8,795	80%	9,636	87%	8,071	73%	8,842	80%
Colorado	10,495	95%	9,137	83%	10,018	91%	8,722	79%
Connecticut	17,184	156%	16,845	153%	14,298	130%	14,016	127%
Delaware	21,086	191%	16,797	152%	21,231	192%	16,913	153%
Florida	7,739	70%	7,566	69%	8,402	76%	8,213	74%
Georgia	9,920	90%	9,814	89%	10,614	96%	10,501	95%
Hawaii	15,686	142%	14,144	128%	11,585	105%	10,446	95%
Idaho	8,629	78%	8,599	78%	9,021	82%	8,990	81%
Illinois	12,911	117%	13,506	122%	12,289	111%	12,855	117%
Indiana	11,888	108%	10,410	94%	11,871	108%	10,396	94%
Iowa	12,478	113%	11,389	103%	12,544	114%	11,449	104%
Kansas	10,387	94%	9,300	84%	10,402	94%	9,313	84%
Kentucky	11,608	105%	11,659	106%	12,829	116%	12,886	117%
Louisiana	8,632	78%	8,235	75%	9,578	87%	9,138	83%
Maine	14,518	132%	15,375	139%	13,311	121%	14,097	128%
Maryland	13,773	125%	13,905	126%	13,793	125%	13,924	126%
Massachusetts	12,327	112%	12,471	113%	10,120	92%	10,238	93%
Michigan	14,479	131%	13,507	122%	14,094	128%	13,148	119%
Minnesota	12,753	116%	12,820	116%	12,132	110%	12,196	111%
Mississippi	9,286	84%	10,118	92%	10,521	95%	11,464	104%
Missouri	10,384	94%	9,843	89%	10,412	94%	9,870	89%
Montana	9,857	89%	8,408	76%	10,364	94%	8,841	80%
Nebraska	12,154	110%	11,539	105%	12,018	109%	11,410	103%
Nevada	10,039	91%	10,578	96%	9,898	90%	10,430	95%
New Hampshire	11,806	107%	11,737	106%	10,249	93%	10,189	92%
New Jersey	14,959	136%	15,900	144%	12,534	114%	13,322	121%
New Mexico	9,419	85%	9,188	83%	9,866	89%	9,623	87%
New York	12,737	115%	13,584	123%	11,113	101%	11,852	107%
North Carolina	11,418	103%	11,349	103%	12,292	111%	12,217	111%
North Dakota	14,083	128%	13,611	123%	14,055	127%	13,585	123%
Ohio	10,506	95%	9,794	89%	10,412	94%	9,706	88%
Oklahoma	9,875	89%	10,514	95%	11,140	101%	11,861	107%
Oregon	10,140	92%	10,188	92%	9,937	90%	9,985	90%
Pennsylvania	14,500	131%	13,737	124%	13,579	123%	12,865	117%
Rhode Island	16,961	154%	17,501	159%	14,761	134%	15,231	138%
South Carolina	10,476	95%	10,572	96%	11,446	104%	11,551	105%
South Dakota	11,087	100%	10,772	98%	11,012	100%	10,699	97%
Tennessee	9,683	88%	9,413	85%	10,601	96%	10,305	93%
Texas	10,779	98%	11,232	102%	12,168	110%	12,678	115%
Utah	9,709	88%	9,233	84%	9,636	87%	9,165	83%
Vermont	16,325	148%	15,730	143%	14,554	132%	14,023	127%
Virginia	11,967	108%	11,526	104%	12,434	113%	11,975	109%
Washington	8,364	76%	8,586	78%	8,003	73%	8,215	74%
West Virginia	9,627	87%	9,767	89%	10,792	98%	10,950	99%
Wisconsin	10,864	98%	10,689	97%	10,540	96%	10,371	94%
Wyoming	14,308	130%	15,809	143%	14,805	134%	16,359	148%
U.S.	11,034	100%	11,034	100%	11,034	100%	\$11,034	100%

Source: State Higher Education Executive Officers

Technical Paper C

Diverse Perspectives on State Higher Education Finance Data

Understanding state support for higher education is complicated by the various perspectives of organizations that measure monetary support. Aside from SHEF, two annual studies are national in scope and report different numbers based on unique definitions and data elements—Illinois State University's *Grapevine* survey and the National Association of State Budget Officers (NASBO) State Expenditure Report. Further complicating the issue, states observe different practices in collecting and reporting data. For example, as reported by NASBO, in FY 2011, nine states exclude all or some of tuition and fees in state expenditures for higher education and eighteen states exclude all or part of student loan programs. Reconciling these differences (both at the data collection and state levels) may be impossible; understanding them, however, is essential for interpreting information on state trends in financing higher education from different sources.

The following summarizes data collected by SHEEO, NASBO, and *Grapevine*.

Grapevine – "State Effort"

Grapevine reports on total "state effort" for higher education, defined as funds from all state sources for universities, colleges, community colleges, and state higher education agencies. The *Grapevine* data collection effort has merged with the SHEF data collection effort to form the new State Support for Higher Education Database (SSDB) data collection. Therefore, *Grapevine*'s "state effort" and SHEF's "state support" are now identical. The SSDB data collection requires that states follow the following guidelines in reporting:

1. Report only appropriations, not actual expenditures.
2. Report only sums appropriated for annual operating expenses.
3. For state tax appropriations in complex universities, separate the sums appropriated for (or allocated to) the main campus, branch campuses, and medical centers (even if on the main campus). Medical center data should include the operations of colleges of medicine, dentistry, pharmacy, and nursing; and teaching hospitals, either lumped as one sum or set out separately, as preferred.

"State effort" for *Grapevine* includes:

- Sums appropriated for state aid to local public community colleges, state-supported community colleges, and vocational-technical two-year colleges or institutions predominantly for high school graduates and adult students.
- Sums appropriated for statewide coordinating or governing boards (for expenses and/or allocation to other institutions).
- Sums appropriated for state scholarships or other student financial aid.
- Sums destined for higher education but appropriated to another state agency.
- Appropriations directed to independent institutions of higher education.
- Funding under state auspices for appropriated non-tax state support (such as monies from lotteries set aside for institutional support or for student assistance).

- Funding under state auspices for non-appropriated state support (such as monies from receipt of lease income and oil/mineral extraction fees on land set aside for public institution benefit).
- Interest or earnings received from state funded endowments set aside for public sector institutions.
- Portions of multi-year appropriations from previous years.
- Any other sources of state funding for higher education operations not listed above.

Excluded items include appropriations for capital outlays and debt service, and appropriations of sums derived from federal sources, student tuition and fee revenues, and auxiliary enterprises.

National Association of State Budget Officers (NASBO) – "State Funds"

NASBO defines state support of higher education as expenditures reflecting support of state university systems, community colleges, and vocational education. "State Funds" are defined as general funds plus other state funds. Fund revenue sources include:

- Sales Tax
- Gaming Tax
- Corporate Income Tax
- Personal Income Tax
- Other taxes and fees (depending on the state, these may include cigarette and tobacco taxes, alcoholic beverage taxes, insurance premiums, severance taxes, licenses and fees for permits, inheritance taxes, and charges for state-provided services)
- Tuition and fees and student loan revenue (in many states)

States are also requested to include capital spending (for some states this can be substantial, and it tends to vary widely from year to year). Exclusions include federal research grants and university endowments.

SHEEO – "Total State and Local Support"

As a result of the combined SSDB effort, the SHEEO definition of Total State Support is the same as the *Grapevine* definition of State Effort. However, SHEEO adds in local tax appropriations for higher education to calculate State and Local Support.

The SHEF report was originally built on Dr. Kent Halstead's *State Profiles: Financing Public Higher Education*, better known as the "Halstead Study." Starting in the 1970s, Research Associates of Washington, headed by Halstead, produced a model of the principal factors governing state support of public higher education. Through the presentation of raw state data, indexed data, weighted state comparisons, and national overviews, Halstead sought to provide states with the capability to assess their support of public higher education. He analyzed state FTE, appropriations, and net tuition data, along with data gathered from the U.S. Census Bureau, the Department of Treasury, and the National Center for Education Statistics, and created tables displaying state support, tax capacity, tax effort, and family share of funding. His results were published in two volumes—the annual *State Profiles: Financing Public Higher Education Rankings*, and the companion trend data, *State Profiles: Financing Public Higher Education Trend Data*. Both were last published in 1998.

In 2001, SHEEO resumed this endeavor.

Like the "Halstead studies," the SHEEO study:

- Analyzes state support for higher education, setting aside support in categories that vary widely among states (research, medical education, and agricultural extension services) so as to focus the analysis on appropriations for instruction and public service in more comparable areas;
- Collects annual student FTE enrollment data to calculate more comparable estimates of state support per student;
- Examines state support for higher education in the context of a state's capacity to raise revenue from taxation;
- Examines the relative contribution of students to the cost of public higher education; and
- Examines interstate differences in the cost of living and in the enrollment mix among different types of institutions.

Additionally, SHEEO's annual survey provides information on:

- State support for the education of students attending independent colleges and universities (direct state grants to institutions, or financial aid to students).
- State support of higher education operations through non-tax revenue, including lottery proceeds, royalties from natural resources, and state-supported endowments.
- Trends in state support for research, medical education, and agricultural extension services.
- State-supported student financial assistance.

APPENDIX A—Grapevine Media Tables

Grapevine, Table 1

State Fiscal Support for Higher Education, by State, Fiscal Years 2007-08 (FY08), 2010-11 (FY11), 2011-12 (FY12), 2012-13 (FY13) ^a

State Fiscal Support (\$)										
	FY08	FY11				FY12				FY13
		Federal Stimulus Monies: Stabilization funds ^c	Federal Stimulus Monies: Government Services Funds ^d	Total Support		Federal Stimulus Monies: Stabilization funds ^c	Federal Stimulus Monies: Government Services Funds ^d	Total Support		State Monies ^b
	State Monies ^b	State Monies ^b			State Monies ^b					
Alabama	1,961,808,342	1,424,817,050	118,743,545	0	1,543,660,595	1,494,583,182	0	1,494,583,182	1,405,063,918	
Alaska	298,615,000	342,153,588	0	0	342,153,588	357,025,101	0	357,025,101	365,195,297	
Arizona	1,325,906,400	1,087,837,100	0	0	1,087,837,100	823,654,000	0	823,654,000	840,320,500	
Arkansas	879,882,230	901,799,213	13,841,365	0	915,440,578	894,531,078	0	894,531,078	908,500,781	
California	11,620,239,000	11,004,708,000	217,079,738	0	11,221,787,738	9,379,003,000	0	9,379,003,000	8,843,276,000	
Colorado	747,481,054	676,318,216	89,194,099	0	765,512,315	647,496,274	0	647,496,274	640,628,978	
Connecticut	1,034,480,989	1,076,131,375	0	0	1,076,131,375	949,946,216	0	949,946,216	957,256,412	
Delaware	243,130,000	212,455,800	0	0	212,455,800	213,193,700	0	213,193,700	216,492,700	
Florida	4,448,930,438	3,706,832,070	348,196,038	2,267,900	4,117,296,008	3,631,070,101	0	3,631,070,101	3,341,628,971	
Georgia	2,959,753,896	2,899,569,440	0	57,298,847	2,956,868,287	2,635,156,774	0	2,635,156,774	2,757,055,556	
Hawaii	554,292,000	489,556,677	22,000,000	240	511,556,917	512,327,897	0	512,327,897	513,516,613	
Idaho	410,595,600	343,297,000	4,786,900	0	348,083,900	333,669,600	0	333,669,600	380,070,800	
Illinois ^e	2,948,632,100	3,251,432,400	0	0	3,251,432,400	3,594,470,100	0	3,594,470,100	3,596,692,200	
Indiana	1,525,216,628	1,564,730,685	0	0	1,564,730,685	1,549,460,261	0	1,549,460,261	1,555,292,622	
Iowa	873,724,167	758,711,929	0	0	758,711,929	740,351,670	0	740,351,670	787,419,692	
Kansas	825,697,884	754,758,804	40,423,534	0	795,182,338	739,612,189	0	739,612,189	759,215,686	
Kentucky	1,320,540,000	1,230,451,419	57,272,800	0	1,287,724,019	1,237,726,232	0	1,237,726,232	1,178,977,000	
Louisiana	1,707,668,337	1,292,584,372	289,592,480	0	1,582,176,852	1,237,070,397	0	1,237,070,397	1,175,660,258	
Maine	271,117,202	268,111,097	10,578,070	0	278,689,767	209,152,608	1,731,508	210,884,116	204,004,554	
Maryland	1,555,048,366	1,615,985,639	0	0	1,615,985,639	1,609,179,797	0	1,609,179,797	1,612,475,870	
Massachusetts	1,347,344,567	1,138,650,196	0	76,053,721	1,214,703,917	1,049,106,956	6,841,643	1,055,948,599	1,048,106,956	
Michigan	2,033,709,000	1,869,659,000	0	0	1,869,659,000	1,547,832,500	0	1,547,832,500	1,596,324,500	
Minnesota	1,560,644,000	1,381,085,000	0	0	1,381,085,000	1,283,690,000	0	1,283,690,000	1,285,247,000	
Mississippi	1,045,937,317	932,494,907	76,387,526	9,831,362	1,018,693,795	954,183,795	0	954,183,795	924,952,654	
Missouri ^f	1,021,705,137	959,555,562	41,442,153	0	1,000,997,715	933,329,405	0	933,329,405	931,239,665	
Montana	196,547,880	172,375,276	29,782,224	7,404,389	209,541,869	202,105,316	0	202,105,316	202,187,817	
Nebraska	657,011,774	653,935,362	0	0	653,935,362	650,437,323	0	650,437,323	659,571,367	
Nevada	620,032,581	550,168,604	0	0	550,168,604	473,148,326	0	473,148,326	472,368,017	
New Hampshire	133,003,000	137,555,400	0	0	137,555,400	82,697,778	0	82,697,778	85,622,352	
New Jersey	2,044,508,000	2,050,400,000	0	0	2,050,400,000	1,998,300,000	0	1,998,300,000	1,888,439,000	
New Mexico	1,016,380,902	835,346,314	10,937,500	950,000	847,233,814	798,972,305	0	798,972,305	799,405,505	
New York	4,853,312,900	4,750,806,239	89,050,000	192,893,287	5,032,849,506	4,718,900,692	14,349,474	4,733,250,166	4,989,658,488	
North Carolina	3,837,233,489	3,947,442,293	119,220,719	0	4,066,663,012	3,914,552,032	0	3,914,552,032	4,092,304,288	
North Dakota	253,901,000	311,678,000	0	0	311,678,000	343,964,303	0	343,964,303	343,805,783	
Ohio	2,288,294,736	1,994,908,607	250,802,662	37,000,000	2,282,711,269	2,013,731,126	0	2,013,731,126	2,039,964,448	
Oklahoma	1,098,881,179	1,046,029,585	59,794,986	0	1,105,824,571	997,857,169	0	997,857,169	981,069,415	
Oregon	725,761,919	626,985,002	23,177,977	0	650,162,979	566,031,814	0	566,031,814	582,208,397	
Pennsylvania	2,193,274,000	2,008,025,000	96,379,000	0	2,104,404,000	1,800,947,000	0	1,800,947,000	1,792,655,000	
Rhode Island	161,329,662	167,433,531	13,776,971	0	171,210,502	160,767,311	28,967,011	189,734,322	164,147,170	
South Carolina	1,211,028,342	814,866,055	110,657,650	3,100,000	928,623,715	859,408,982	0	859,408,982	942,770,165	
South Dakota	198,949,272	185,250,977	11,365,508	0	196,616,485	181,016,376	0	181,016,376	190,251,431	
Tennessee ^g	1,639,550,600	1,659,586,381	0	0	1,659,586,381	1,414,996,174	0	1,414,996,174	1,455,168,863	
Texas	6,347,752,622	6,270,811,568	0	0	6,270,811,568	6,464,046,632	0	6,464,046,632	6,425,707,479	
Utah	812,337,500	696,896,522	19,819,622	18,155,478	734,871,622	728,822,600	0	728,822,600	748,759,000	
Vermont	90,801,444	93,731,614	0	495,811	94,227,425	90,025,655	84,006	90,108,661	87,996,319	
Virginia	1,885,553,314	1,702,243,400	201,734,434	0	1,903,977,834	1,624,026,722	0	1,624,026,722	1,703,083,307	
Washington	1,768,291,000	1,592,882,000	0	0	1,592,882,000	1,361,782,000	0	1,361,782,000	1,372,858,000	
West Virginia	562,253,000	500,524,210	27,655,637	6,939,163	535,119,010	543,308,703	158,781	543,467,484	545,760,686	
Wisconsin	1,242,636,879	1,330,088,284	0	0	1,330,088,284	1,153,558,680	0	1,153,558,680	1,192,780,084	
Wyoming	290,507,515	344,287,021	32,208,405	8,300,000	384,795,426	337,988,717	0	337,988,717	384,199,290	
Totals (State Support)	80,681,264,224	75,676,124,474	2,425,641,353	420,690,158	78,522,455,985	72,098,316,370	30,728,519	95,666,816	72,224,711,705	71,966,406,875

a) FY2013 figures on state support for higher education represent initial allocations and estimates reported by the states from September through December 2012 and are subject to change.

b) State monies include state tax appropriations and other state funds allocated to higher education.

c) Includes education stabilization funds used to restore the level of state support for public higher education.

d) Excludes government services funds used for modernization, renovation, or repair.

e) Includes rapidly increasing appropriations made to the State Universities Retirement System (SURS) to address historical underfunding of pension programs. These SURS appropriations do not go to individual institutions or agencies and are not available to be used for educational purposes.

f) Includes \$30 million to Missouri for need-based grants in FY11 and FY12, and \$5 million in FY13 for this same purpose, from the Missouri Higher Education Loan Authority, commonly referred to as MOHELA, which is a quasi-governmental organization. Also reflected in the 2012 and 2013 figures is \$100,000 provided to the state by this same entity for an Advanced Placement Incentive Grant, a nonrenewable grant award to eligible students based on specified criteria.

g) Tennessee's 12.3% decrease in state monies for higher education between FY11 and FY13 is an anomaly, reflecting the decision by state government to apply all available federal stimulus funds in FY11 to K-12 education. An equivalent amount of one-time state funds were appropriated to higher education instead. Because of this decision, FY11 was artificially high, distorting the calculation of the change from FY11 to FY13.

Grapevine Table 2

One-Year (FY12-FY13), Two-Year (FY11-FY13), and Five-Year (FY08-FY13) Percent Changes in State Fiscal Support for Higher Education

STATES	1-Year % Change, FY12-FY13		2-Year % Change, FY11-FY13		5-Year % Change, FY08-FY13
	State \$ Only	State & Plus ARRA	State \$ Only	State & Plus ARRA	State \$ Only
Alabama	-8.0%	-6.0%	-1.4%	-9.0%	-28.4%
Alaska	2.3%	2.3%	6.7%	6.7%	22.3%
Arizona	2.0%	2.0%	-22.8%	-22.8%	-36.6%
Arkansas	1.3%	1.3%	0.5%	-1.0%	3.0%
California	-5.7%	-5.7%	-19.6%	-21.2%	-23.9%
Colorado	-1.1%	-1.1%	-5.3%	-16.3%	-14.3%
Connecticut	0.8%	0.8%	-11.0%	-11.0%	-7.5%
Delaware	1.5%	1.5%	1.9%	1.9%	-11.0%
Florida	-8.0%	-8.0%	-11.3%	-18.8%	-24.9%
Georgia	4.6%	1.8%	-4.9%	-6.8%	-6.8%
Hawaii	0.2%	0.2%	4.9%	0.4%	-7.4%
Idaho	7.9%	7.9%	4.9%	3.4%	-12.3%
Illinois	-0.8%	-0.8%	9.7%	9.7%	21.0%
Indiana	0.4%	0.4%	-0.6%	-0.6%	2.0%
Iowa	6.4%	6.4%	3.8%	3.8%	-9.9%
Kansas	2.7%	2.7%	0.6%	-4.5%	-8.1%
Kentucky	-4.7%	-4.7%	-4.2%	-8.4%	-10.7%
Louisiana	-5.0%	-5.0%	-9.0%	-25.7%	-31.2%
Maine	-1.9%	-2.5%	-0.8%	-4.6%	-2.6%
Maryland	0.2%	0.2%	-0.2%	-0.2%	3.7%
Massachusetts	0.0%	-0.6%	-7.9%	-13.6%	-22.1%
Michigan	3.1%	3.1%	-14.6%	-14.6%	-21.5%
Minnesota	0.1%	0.1%	-6.9%	-6.9%	-17.6%
Mississippi	-3.1%	-3.1%	-0.8%	-9.2%	-11.6%
Missouri	-0.2%	-0.2%	-3.0%	-7.0%	-8.9%
Montana	0.0%	0.0%	17.3%	-3.5%	2.9%
Nebraska	1.4%	1.4%	0.9%	0.9%	0.4%
Nevada	-0.2%	-0.2%	-14.1%	-14.1%	-23.8%
New Hampshire	3.5%	3.5%	-37.8%	-37.8%	-35.7%
New Jersey	-5.5%	-5.5%	-7.9%	-7.9%	-7.6%
New Mexico	0.1%	0.1%	-4.3%	-5.6%	-21.3%
New York	5.7%	5.4%	5.0%	-0.9%	2.8%
North Carolina	4.5%	4.5%	3.7%	0.6%	6.6%
North Dakota	0.0%	0.0%	10.3%	10.3%	35.4%
Ohio	1.3%	1.3%	2.3%	-10.6%	-10.9%
Oklahoma	-1.7%	-1.7%	-6.2%	-11.3%	-10.7%
Oregon	2.9%	2.9%	-7.1%	-10.5%	-19.8%
Pennsylvania	-0.5%	-0.5%	-10.7%	-14.8%	-18.3%
Rhode Island	2.1%	-13.5%	4.3%	-4.1%	-14.2%
South Carolina	9.7%	9.7%	15.7%	1.5%	-22.2%
South Dakota	5.1%	5.1%	2.7%	-3.2%	-4.4%
Tennessee	2.8%	2.8%	-12.3%	-12.3%	-11.2%
Texas	-0.6%	-0.6%	2.5%	2.5%	1.2%
Utah	2.7%	2.7%	7.4%	1.9%	-7.8%
Vermont	-2.3%	-2.3%	-6.1%	-6.6%	-3.1%
Virginia	4.9%	4.9%	0.0%	-10.6%	-9.7%
Washington	0.8%	0.8%	-13.8%	-13.8%	-22.4%
West Virginia	0.5%	0.4%	9.0%	2.0%	-2.9%
Wisconsin	2.5%	2.5%	-11.1%	-11.1%	-4.8%
Wyoming	13.7%	13.7%	11.6%	-0.2%	32.3%
Totals	-0.2%	-0.4%	-4.9%	-8.3%	-10.8%

a) Includes Government Services funds used for public higher education excluding modernization, renovation, or repair.

b) Includes rapidly increasing appropriations made to the State Universities Retirement System (SURS) to address historical underfunding of pension programs. These SURS appropriations do not go to individual institutions or agencies and are not available to be used for educational purposes.

c) Includes \$30 million to Missouri for need-based grants in FY11 and FY12, and \$5 million in FY13 for this same purpose, from the Missouri Higher Education Loan Authority, commonly referred to as MOHELA, which is a quasi-governmental organization. Also reflected in the 2012 and 2013 figures is \$100,000 provided to the state by this same entity for an Advanced Placement Incentive Grant, a nonrenewable grant award to eligible students based on specified criteria. d) Tennessee's 12.3% decrease in state monies for higher education between FY11 and FY13 is an anomaly, reflecting the decision by state government to apply all available federal stimulus funds in FY11 to K-12 education. An equivalent amount of one-time state funds were appropriated to higher education instead. Because of this decision, FY11 was artificially high, distorting the calculation of the change from FY11 to FY13.

d) Tennessee's 12.3% decrease in state monies for higher education between FY11 and FY13 is an anomaly, reflecting the decision by state government to apply all available federal stimulus funds in FY11 to K-12 education. An equivalent amount of one-time state funds were appropriated to higher education instead. Because of this decision, FY11 was artificially high, distorting the calculation of the change from FY11 to FY13.

APPENDIX B—Glossary of Terms

Cost Adjustments

Consumer Price Index (CPI). A measure of the average change over time in the price of a market basket of consumer goods and services. Sources: Bureau of Labor Statistics, U.S. Department of Labor.

Employment Cost Index (ECI). A measure of the change in labor costs, outside the influence of employment shifts, among occupations and industries. The ECI for private industry white-collar occupations (excluding sales) accounts for 75 percent of the State Higher Education Executive Officers (SHEEO) Higher Education Cost Adjustment (HECA). HECA uses the compensation series that includes changes in wages and salaries plus employer costs for employee benefits. Sources: Bureau of Labor Statistics, U.S. Department of Labor.

Gross Domestic Product (GDP). The total market value of all final goods and services produced in the country in a given year—the sum of total consumer spending, investment spending, government spending, and exports, minus imports. Source: Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Commerce.

Gross Domestic Product Implicit Price Deflator (GDP IPD). Current dollar GDP divided by constant dollar GDP. This ratio is used to account for inflationary effects by reflecting both the change in the price of the bundle of goods comprising the GDP and the change to the bundle itself. The GDP IPD accounts for 25 percent of the SHEEO HECA. Sources: Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Commerce.

Higher Education Cost Adjustment (HECA). Measures price inflation experienced by colleges and universities. The HECA uses two external indices maintained by the federal government—the ECI (accounts for 75 percent of the index) and the GDP IPD (accounts for the remainder). Source: SSDB.

Higher Education Price Index (HEPI). Developed by Kent Halstead, the HEPI measures the inflationary effect on college and university operations. It measures the average relative level in the price of a fixed market basket of goods and services purchased by colleges and universities through current fund educational and general expenses (excluding those for sponsored research, department sales and services, and auxiliary enterprises). Source: Commonfund (www.commonfund.org; rollover “Investor Services” and choose “Research”).

Price Inflation. The percentage increase in the price of a market basket of goods and services over a specific time period.

Enrollment

Full-Time-Equivalent Enrollment (FTE). A measure of enrollment equal to one student enrolled full-time for one academic year, based on all credit hours (including summer sessions). The SHEF data capture FTE enrollment in public institutions of higher education from those credit or contact hours associated with courses that apply to a degree or certificate, excluding non-credit continuing education, adult education, and extension courses.

If courses meet the “formal award potential” criterion, they may include vocational-technical, remedial, and other program enrollment at two-year community colleges and state-approved area vocational-technical centers. Medical school enrollment is reported but set aside from the net FTE used in “funding per FTE” calculations because states vary widely in the extent of medical school funding.

The FTE calculation differs with the type and level of instruction:

- Contact hour courses: One annual FTE is the sum of total contact hours divided by 900.

- Undergraduate credit hour courses: One annual FTE is the sum of total credits divided by 30 (for semester-based calendar systems) or 45 (for quarter systems).
- Graduate and first-professional credit hour courses: One annual FTE is the sum of total credits divided by 24 (for semester systems) or 36 (for quarter systems). Source: SSDB.

Revenue

Appropriations. Money set aside by formal legislative action for a specific use.

Educational Appropriations.¹³ Net State Support plus Local Tax Appropriations minus Research, Agricultural, and Medical (RAM) appropriations. Source: SSDB.

Gross State Support. The sum of State Tax Appropriations plus:

- Funding under state auspices for appropriated non-tax state support (e.g., lotteries, casinos, and tobacco settlement funds) set aside for higher education;
- Funding under state auspices for non-appropriated state support (e.g., monies from receipt of lease income, cattle grazing rights, and oil/mineral extraction fees on land) set aside for higher education;
- Sums destined for higher education but appropriated to some other state agency (e.g., administered funds or funds intended for faculty/staff fringe benefits that are appropriated to the state treasurer);
- Interest or earnings received from state-funded endowments pledged to public sector institutions; and
- Portions of multi-year appropriations from previous years. Source: SSDB.

Local Tax Appropriations. Annual appropriations from local government taxes for public higher education institution operating expenses. Source: SSDB.

Net State Support. State support for public higher education annual operating expenses. The difference resulting from Gross State Support less:

- Appropriations returned to the state;
- State-appropriated funds derived from federal sources;
- Portions of multi-year appropriations to be distributed over subsequent years;
- Tuition charges remitted to the state to offset state appropriations;
- Tuition and fees used for capital debt service and capital improvement (other than that paid by students for auxiliary enterprise debt service);
- State funding for students in non-credit continuing or adult education courses and non-credit extension courses;
- Sums appropriated to independent institutions for capital outlay or operating expenses;
- Allocation of appropriations for financial aid grants to students attending in-state independent institutions; and
- Allocation of appropriations for financial aid grants to students attending out-of-state institutions. Source: SSDB.

¹³ For FY 2009 through FY 2012, educational appropriations includes funds allocated to states by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA), specifically those funds from the Education Stabilization Fund and Other Government Services Fund that were to be used to fill shortfalls in state support for general operating expenses at public colleges and universities. In FY 2011, this totaled to \$2.8 billion

Personal Income. The income received by all persons from participation in production, from government and business transfer payments, and from government interest. Personal income is the sum of net earnings by place of residence, rental income, personal dividend income, personal interest income, and transfer payments. Net earnings is earnings by place of work (wage and salary disbursements, and proprietors' income) less personal contributions for social insurance, including an adjustment to convert earnings by place of work to earnings by place of residence. Personal income is measured before the deduction of personal income taxes and is reported in current dollars. Sources: Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Treasury.

Research, Agricultural, and Medical Appropriations (RAM). Special purpose appropriations targeted by legislative budget line-item identification or institutional designation for the direct operation and administrative support of research centers and institutes, agricultural experiment stations, cooperative extension services, teaching hospitals, health care public services, and four types of medical schools—medical, osteopathic, dental, and veterinary. Source: SSDB.

State Tax Appropriations. Appropriations from state government taxes for public and private higher education institution and agency annual operating expenses, excluding capital outlay (for new construction or debt retirement) and revenue from auxiliary enterprises. These sums are largely the same as those reported as part of the annual *Grapevine* survey of the Center for the Study of Higher Education Policy at Illinois State University. Source: *Grapevine*, as reported to SHEEO.

Student Share. The share of Total Educational Revenue from students or their families. Net Tuition Revenue as a percentage of Total Educational Revenue. Source: SSDB.

Total Educational Revenue. The sum of Educational Appropriations and Net Tuition Revenue. Source: SSDB.

State Tax Revenue, Capacity, Effort, and Higher Education Allocation

Actual Tax Revenue (ATR). General revenue derived from taxation by state and local governments. Source: U.S. Census Bureau.

Effective Tax Rate (ETR). Actual Tax Revenue per capita divided by Total Taxable Resources per capita, expressed as a percentage. In 2000, the national average effective tax rate was 7.8 percent, or \$3,086 divided by \$39,579. An indexed value is derived by dividing the state's effective tax rate by the national average effective tax rate. Sources: Population and Actual Tax Revenue from the U.S. Census Bureau; Total Taxable Resources from the Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Treasury.

State Higher Education Allocation. Measures total state support and local appropriations to higher education as a percentage of state plus local tax revenues. Source: SHEEO calculation from SHEF and U.S. Census data.

Total Taxable Resources Index (TTR). Total Taxable Resources is the sum of Gross State Product (in-state production) minus components presumed not taxable by the state plus various components of income derived from out-of-state sources. An indexed value for each state is derived by dividing the state's TTR per capita by the national average TTR per capita. Source: Bureau of Economic Analysis, the Office of Economic Policy, and the U.S. Department of Treasury (with the exception of net realized capital gains (from the Internal Revenue Service).

Tuition and Fee Revenue

Gross Tuition and Fees. Gross assessments by public postsecondary institutions for tuition and mandatory education fees. Source: SSDB.

Net Tuition Revenue. The sum of Gross Tuition and Mandatory Fee Assessments minus state-funded student financial aid, institutional discounts and waivers, and medical school student tuition revenue. Enrollment, state appropriations, and medical school tuition revenue are set aside in many SHEF analyses to improve interstate evaluation. Source: SSDB.

APPENDIX C—State Data Providers

Alabama

Susan Cagle
Director of Institutional Finance & Facilities
Alabama Commission on Higher Education
100 North Union Street P.O. Box 302000
Montgomery, AL 36130-2000
(334) 242-2105
susan.cagle@ache.alabama.gov

Alaska

Alesia Krukenberg
Budget Analyst
University of Alaska System
P.O. Box 755260
Fairbanks AK 997755260
(907) 450-8426
amkruckenberg@alaska.edu

Arizona

Gale Tebeau
Director of Financial Policies
Arizona Board of Regents
2020 North Central Avenue, Suite 230
Phoenix, AZ 85004-4593
(602) 229-2522
gale.tebeau@AZREGENTS.EDU

Arkansas

Chandra Robinson
Program Coordinator, Institutional Finance
Division
Arkansas Department of Higher Education
114 E. Capitol Ave
Little Rock AR 72201
(501) 371-2024
Chandra.robinson@adhe.edu

Callan Callaway
Finance/Personnel
Arkansas Department of Higher Education
423 Main Street, Suite 400
Little Rock AR 72201
(501) 371-2037
Callan.Callaway@adhe.edu

California

Judy Heiman
Principal Analyst
California Legislative Analyst's Office
925 L Street, Ste. 1000
Sacramento CA 95814
(916) 319-8358
Judy.Heiman@LAO.CA.GOV

Colorado

Julia Ramsey
Budget Director
Colorado Department of Higher Education
1560 Broadway, Suite 1600
Denver CO 80202
(303) 866-4025
julia.ramsey@dhe.state.co.us

Connecticut

Nancy Brady
Director, Finance
Connecticut Office of Higher Education
61 Woodland Street
Hartford, CT 06105-2326
(860) 947-1850
nbrady@ctohe.org

Delaware

Chesiree Wise
Data Analyst
Delaware Department of Education
Higher Education Office
John G. Townsend Building
401 Federal Street
Dover, DE 19901
(302) 735-4120
Cwise@doe.k12.de.us

Florida

Matthew Bouck
Director, Office of Articulation
Florida Department of Education
1401 Turlington Bldg.
325 West Gaines Street
Tallahassee FL 32399-0400
(850) 245-9544
Matthew.Bouck@fldoe.org

Kristie Harris
Budget Director
State University System of Florida
Board of Governors
325 West Gaines Street, Suite 1614
Tallahassee, FL
(850) 245-9757
Kristie.Harris@flbog.edu

Alicia D. Trexler
Director, Office of Budget and Financial services
The Florida College System Budget Office/FDOE
325 W Gaines Street, Suite 1224B
Tallahassee FL 32399-0400
8502459390
Alicia.Trexler@fldoe.org

Georgia

Ken Kincaid
Chief Financial Officer
Technical College System of Georgia
1800 Century Place
Atlanta, GA 30345
(404) 679-1706
kkincaid@tcsg.edu

Tracey Cook
Assistant Vice Chancellor for Fiscal
Affairs/Budget Director
Board of Regents of the University System of
Georgia
270 Washington Street, SW
Atlanta, GA 30334
(404) 656-2276
Tracey.Cook@usg.edu

Hawaii

Dennis Nishino
Program and Budget Manager
University of Hawai'i System
2444 Dole Street
University Budget Office
Honolulu, HI 96822
(808) 956-8513
nishino@hawaii.edu

Idaho

Scott Christie
Financial Manager
Idaho State Board of Education
PO Box 83720
Boise, ID 83720
(208) 332-1581
scott.christie@osbe.idaho.gov

Illinois

Matt Berry
Assistant Director, Fiscal Affairs
Illinois Board of Higher Education
431 East Adams, 2nd Floor
Springfield, IL 62701-1404
(217) 557-7348
berry@ibhe.org

Alan D. Phillips
Deputy Director for Fiscal Affairs, Budgeting,
and Information Technology
Illinois Board of Higher Education
431 East Adams, 2nd Floor
Springfield, MA 62701-1404
(217) 557-7353
phillips@ibhe.org

Indiana

Jason D. Dudich
Associate Commissioner and CFO
Indiana Commission for Higher Education
101 West Ohio Street, Suite 550
Indianapolis, IN 46204-1984
(317) 464-4400
jasond@che.in.gov

Iowa

Patrice Sayre
Chief Business Officer
Board of Regents, State of Iowa
11260 Aurora Avenue
Urbandale, IA 50322-7905
(515) 281-6421
psayre@iastate.edu

Kansas

Diane C. Duffy
Vice President, Finance & Administration
Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368
(785) 296-3421
dduffy@ksbor.org

Kentucky

William Payne
Senior Associate, Finance
Kentucky Council on Postsecondary Education
1024 Capital Center Drive, Suite 320
Frankfort, KY 40601
(502) 573-1555
bill.payne@ky.gov

Louisiana

Lori H. Parker
Assistant Commissioner for Budget Analysis
Louisiana Board of Regents
1201 North Third Street, Suite 6-200
Baton Rouge LA 70821-3677
(225) 342-4253
Lori.Parker@regents.la.gov

Maine

Miriam White
Director of Budget & Financial Analysis
University of Maine System
16 Central Street
Bangor, ME 04401-5106
(207) 973-3364
mwhite@maine.edu

Maryland

Geoffrey Newman
Director of Finance Policy
Maryland Higher Education Commission
6 N. Liberty St.
Baltimore, MD 21201
(410) 767-3301
gnewman@mhec.state.md.us

Massachusetts

Catherine Cheng
Staff Assistant, Employee and Labor Relations
Massachusetts Department of Higher Education
One Ashburton Place, Room 1401
Boston MA 02108-1696
(617) 994-6929
ccheng@bhe.mass.edu

Jonathan Keller
Associate Commissioner for Research, Planning,
and Information Systems
Massachusetts Department of Higher Education
One Ashburton Place, Room 1401
Boston, MA 02108-1696
(617) 994-6941
jkeller@bhe.mass.edu

Michigan

Robert Murphy
Higher Education Analyst
Michigan State Budget Office
Romney Building, Sixth Floor
111 South Capitol Avenue
Lansing, MI 48909
(517) 335-1539
MurphyR1@michigan.gov

Minnesota

Jack Rayburn
Research and Program Services
Minnesota Office of Higher Education
1450 Energy Park Drive, Suite 350
St. Paul, MN 55108-5227
(651) 642-0593
jack.rayburn@state.mn.us

Mississippi

Linda McFall
Deputy Commissioner
Finance and Administration
Mississippi Institutions of Higher Learning
3825 Ridgewood Road, Room 426
Jackson, MS 39211
(601) 432-6147
lmcfall@ihl.state.ms.us

Missouri

Paul Wagner
Deputy Commissioner
Missouri Department of Higher Education
P.O. Box 1469
Jefferson City MO 65102
(573) 751-1794
paul.wagner@dhe.mo.gov

Paula Wolken
Research Associate
Missouri Department of Higher Education
P.O. Box 1469
Jefferson City MO 65102
(573) 522-1311
Paula.Wolken@dhe.mo.gov

Montana

Frieda Houser
Director of Accounting & Budgeting
Montana University System
2500 Broadway Street
P.O. Box 203201
Helena, MT 59620
(406) 444-0320
fhouser@montana.edu

Nebraska

Carna Pfeil
Associate Director
Nebraska's Coordinating Commission
for Postsecondary Education
P.O. Box 95005
Lincoln, NE 68509-5005
(402) 471-0029
Carna.Pfeil@nebraska.gov

Nevada

Jamie Hullman
Fiscal Officer
Nevada System of Higher Education
2601 Enterprise Road
Reno NV 895121666
(775) 784-4901
jamie_hullman@nshe.nevada.edu

New Hampshire

Melanie DeZenko
Budget Director
University System of New Hampshire
Dunlap Center
25 Concord Road
Durham, NH 03824-3545
(603) 862-0968
melanie.dezenzo@usnh.edu

Michael Marr
Director of Financial Operations
Community College System of New Hampshire
26 College Drive
Concord NH 03301
(603) 271-6670
mmarr@ccsnh.edu

Amy E. Slattery
Grants, Research and Studies Coordinator
New Hampshire Department of Education
Division of Higher Education
Higher Education Commission
101 Pleasant Street
Concord, NH 03301
(603) 271-2695
Amy.Slattery@doe.nh.gov

New Jersey

Elizabeth S. Garlatti
Director, Finance and Research
New Jersey Higher Education
20 West State Street, P.O. Box 542
Trenton, NJ 08625
(609) 292-3235
elizabeth.garlatti@njhe.state.nj.us

New Mexico

Henry Mignardot
Interim Director of Institutional Finance and
Capital Projects Coordinator
New Mexico Higher Education Department
2048 Galisteo Street
Santa Fe NM 87505-2100
(505) 476-8433
Henry.mignardot@state.nm.us

John Rush
Director of Institutional Finance
New Mexico Higher Education Department
2048 Galisteo Street
Santa Fe NM 87505
(505) 476-8434
john.rush@state.nm.us

New York

Catherine Abata
Deputy Budget Director
The City University of New York (CUNY)
University Budget Office
230 West 41st Street, Room 508
New York, NY 10036
(646) 746-4274
Catherine.Abata@mail.cuny.edu

Wendy C. Gilman
University Budget Director
University of the State of New York (USNY)
State Education Department, Office of Higher
Education, University Budget Office
State University Plaza
Albany, NY 12246
(518) 443-5165
wendy.gilman@suny.edu

Tim Lever
Senior Budget Analyst
Office of Budget & Finance
The State University of New York (SUNY)
State University Plaza
Albany NY 12246
(518) 320-1166
Timothy.Lever@suny.edu

North Carolina

Tracy Williams Pender
Systems Accountant
Business & Finance Division
North Carolina Community College System
200 West Jones Street
Raleigh, NC 27603
(919) 807-7230
pendert@nccommunitycolleges.edu

Jonathan Pruitt
Associate Vice President for Finance
University of North Carolina
General Administration
910 Raleigh Rd., P.O. Box 2688
Chapel Hill NC 27514
(919) 962-4600
jpruitt@northcarolina.edu

North Dakota

Cathy McDonald
Director of Finance
North Dakota University System
600 East Boulevard Avenue, Dept. 215
Bismarck, ND 58505-0230
(701) 328-4111
cathy.mcdonald@ndus.edu

Ohio

David Cannon
Vice Chancellor of Finance & Data Management
Ohio Board of Regents
30 East Broad Street, 36th Floor
Columbus, OH 43215
(614) 728-2281
dcannon@regents.state.oh.us

Oklahoma

Amanda Paliotta
Vice Chancellor for Budget & Finance
Oklahoma State Regents for Higher Education
655 Research Parkway, Suite 200
Oklahoma City, OK 73104
(405) 225-9126
apaliotta@osrhe.edu

Oregon

Barbara Russell
Senior Fiscal Analyst
Budget Operations & Planning
Oregon University System
B236 Kerr Admin Bldg
Corvallis, OR 97331
(541) 737-2924
Barb_Russell@ous.edu

Elizabeth Willis Schauer mann
Associate Vice Provost, Finance
Oregon Health & Science University
3181 SW Sam Jackson Park Road, MC L349
Portland, OR 97239
(503) 494-0530
willise@ohsu.edu

Paul Schroeder
Researcher
Department of Community Colleges and
Workforce Development
255 Capitol Street NE
Salem, OR 97310
(503) 378-8648
paul.schroeder@state.or.us

Pennsylvania

Lori Graham
Assistant Director
Pennsylvania Department of Education
Bureau of Budget & Fiscal Management
333 Market Street, 4th Floor
Harrisburg PA 17126-0333
(717) 787-7808
lgraham@state.pa.us

Rhode Island

Robin Beaupre
Higher Education Budget Administrator
Rhode Island Board of Governors
for Higher Education
The Shepard Building
80 Washington Street, 5th Floor
Providence, RI 02903
(401) 456-6020
rbeaupre@ribghe.org

South Carolina

Stephanie Charbonneau
Program Manager, Finance
South Carolina Commission on Higher Education
1122 Lady Street, Suite 300
Columbia, SC 29201
(803) 737-7781
scharbonneau@che.sc.gov

South Dakota

Mary Ellen Garrett
Budget and Accounting Coordinator
South Dakota Board of Regents
306 East Capital Avenue, Suite 200
Pierre, SD 57501-2545
(605) 773-3455
maryg@sdbor.edu

Monte Kramer
System Vice President
Finance and Administration
South Dakota Board of Regents
306 East Capital Avenue, Suite 200
Pierre, SD 57501-2545
(605) 773-3455
montek@sdbor.edu

Tennessee

Scott Boelscher
Director of Fiscal Policy and Facilities Analysis
Tennessee Higher Education Commission
404 James Robertson Parkway, Suite 1900
Nashville, TN 37243
(615) 741-7578
scott.boelscher@tn.gov

Russ Deaton
Associate Executive Director
Fiscal Policy & Administration
Tennessee Higher Education Commission
404 James Robertson Parkway, Suite 1900
Nashville, TN 37243-0830
(615) 741-3605
Russ.Deaton@tn.gov

Texas

Jim Pinkard
Program Director, Finance/Resource Planning
Texas Higher Education Coordinating Board
1200 East Anderson Lane, PO Box 12788
Austin, TX 78711
(512) 427-6137
jim.pinkard@thehb.state.tx.us

Utah

Paul Morris
Assistant Commissioner
Budget and Planning
Utah System of Higher Education
60 S 400 W
Salt Lake City, UT 84101-1284
(801) 366-8423
pmorris@utahsbr.edu

Gregory Stauffer
Associate Commissioner for Finance & Facilities
Utah System of Higher Education
60 S 400 W
Salt Lake City, UT 84101-1284
(801) 321-7104
gstauffer@utahsbr.edu

Virginia

R. Dan Hix
Finance Policy Director
State Council of Higher Education for Virginia
James Monroe Building, 10th Floor
101 North 14th Street
Richmond, VA 23219
(804) 225-3188
DanHix@schev.edu

Yan Zheng
Assistant Director for Finance Policy
State Council of Higher Education for Virginia
James Monroe Building, 10th Floor
101 North 14th Street
Richmond, VA 23219
(804) 225-3145
YanZheng@schev.edu

Vermont

Alberto M. Citarella
University Budget Director
University of Vermont
440 College Street, Room 305
Burlington VT 05405
(802) 656-1164
Alberto.Citarella@uvm.edu

Jasmine Manuelyan
Administrative Analyst/Planner
Financial Analysis & Budgeting
The University of Vermont
440 College Street, Room 202
Burlington VT 05405
(802) 656-0412
Jasmine.Manuelyan@uvm.edu

Thomas A. Robbins
Vice President, Finance & Administration
Chief Financial Officer
Vermont State Colleges
Office of the Chancellor, P.O. Box 7
Montpelier VT 05601-0007
(802) 224-3000
robbinst@vsc.edu

Deborah Robinson
Controller
Vermont State Colleges
P.O. Box 7
Montpelier VT 05601-0007
(802) 224-3021
Deborah.Robinson@vsc.edu

Washington

Christy England-Siegerdt
Director of Research & Planning
Washington Student Achievement Council
917 Lakeridge Way SW, P.O. Box 43430
Olympia WA 98504-3430
(360) 753-7864
christye@wsac.wa.gov

Richard Heggie
Fiscal Policy Analyst
Washington Student Achievement Council
917 Lakeridge Way SW, P.O. Box 43430
Olympia WA 98504
(360) 753-7891
RickH@wsac.wa.gov

West Virginia

Patty Miller
Budget Officer
West Virginia Higher Education Policy
Commission
1018 Kanawha Blvd E, Suite 700
Charleston, WV 25301
(304) 558-0281
miller@hepc.wvnet.edu

Wisconsin

Sue Ellen Buth
Policy and Planning Analyst
University of Wisconsin System
1720 Van Hise Hall - 1220 Linden Drive
Madison, WI 53706
(608) 262-1751
sbuth@uwsa.edu

Wyoming

Mark Collins
Interim VP for Administrative Operations
University of Wyoming
Old Main 202E
1000 E. University Ave.
Laramie WY 82071
(307) 766-4196
mcollin7@uwyo.edu

Janet Lowe
Interim Vice President for Fiscal Administration
University of Wyoming
Old Main 318
1000 E. University Ave.
Laramie WY 82071
(307) 766-3307
JLowe@uwyo.edu

Matthew Petry
Deputy Director and Chief Financial Officer
Wyoming Community College Commission
2020 Carey Avenue, 8th Floor
Cheyenne WY 82002
(307) 777-5859
mpetry@commission.wcc.edu

Claire Smith
Administrative Services Manager
Wyoming Community College System
2020 Carey Avenue, 8th Floor
Cheyenne, WY 82002
(307) 777-7227
claire.smith@wyo.gov

Suzie Waggoner
IPEDS Coordinator
University of Wyoming
Office of Institutional Analysis
Old Main 413
1000 E. University Ave.
Laramie WY 82071
(307) 766-2895
SCash@uwyo.edu

APPENDIX D—SSDB Collection Instructions

State Support for Higher Education Database Collection for the FY13 Grapevine and the FY12 SHEF reports

Thank you so much for taking the time to complete SHEEO's 2012-2013 State Higher Education Finance (SHEF) data collection. We are continuing to use the online collection form for this year's data collection since most data providers have become comfortable with the functionality of this tool. Not including this page, there are a total of SIX pages on which we'd like you to enter information for your state.

General Instructions:

- Please fill out the collection form as completely as possible.
- Please complete AT LEAST PAGE 1 by October 15, 2012. Page 1 contains information on ARRA Funds and state support for ALL higher education; it is the basis for the Grapevine Survey. If you are able to complete the other sections by this time, please do so.
- Complete the entire form by December 3, 2012.
- Enter data for the years that appear on each page. You can also edit any past data that need to be updated in the data collection tool.
- Please report appropriations, not actual expenditures.
- If you don't have actual figures, but can provide an estimate, please do so. You can indicate that these are estimates in the comment box. There is a comment box at the bottom of each page.
- Please enter only whole numbers.
- If you place your cursor on a data element name for a few moments, a pop-up box will appear and will provide additional guidance.
- If you have no data for a particular entry, please enter "0."
- Do not enter information into any GREY shaded cells.
- To navigate between the pages, use buttons at the bottom of each page. To go back you can also use tabs across the top.
- Please let us know your progress by marking the designated check boxes at the bottom of the page when you are finished with each page of data and with the survey as a whole. Marking these checkboxes will tell us the data for the respective page is accurate, complete, and ready to be published.
- To exit the collection instrument, click on "Save and Exit" button. **Please do not close the window before doing this.** There is a "Save and Exit" button at the bottom of each page.
- When you click "Save and Exit" you will have the opportunity to have an Excel Report version of your current data emailed to you. Enter your email address into the "Email Address" Box and click "Email Excel File".

The information that is collected on Pages 1-4 is described in the following pages. Page 5 is a verification page, showing unadjusted data and data adjusted by the EMI and COLA indices. This is how your data will be reported. Please take a moment to review and make sure they are correct. On Page 6, you are asked to break down State Support for All Higher Education, Net Tuition Revenue, and Public FTE Net of Medical Enrollment by sector. We continually receive data requests for these elements and have tried to make collecting this information as simple as possible.

Thank you for all the work you do to help us publish the Grapevine and SHEF reports!

Page 1:

American Reinvestment and Recovery Act of 2009 (ARRA) Funds

Please report all ARRA funds received in this section. There is a place to report Education Stabilization Funds, Government Services Funds for public higher education operations, and Government Services Funds for capital improvements to higher education institutions, whether they are public or private. Please make sure that these funds are **NOT** included in your state support figures. In the reports, these funds will be reported separately **AND** added to state support figures. If you include these funds in the state support figures, they will be double counted. NOTE: ARRA funds were available for Fiscal Years 2009, 2010, and 2011. In some states, these funds may have been encumbered in their FY 2012. ARRA funds should not be reported in FY 2013.

Data Elements collected in this section:

1. Education Stabilization Funds used to restore the level of state support for public higher education.
2. Government Services Funds used for public higher education excluding modernization, renovation, or repair.
3. Government Service Funds used for modernization, renovation, or repair of higher education institutions (public and private).

State Support for All Higher Education

The intent of this section is to collect information about how much money the state provides to support higher education (excluding capital and debt service).

Include:

- sums appropriated for state aid to local public community colleges and for operation of state-supported community colleges, and for vocational-technical two-year colleges or institutes that are predominantly for high school graduates and adult students;
- sums appropriated to statewide coordinating boards or governing boards, either for board expenses or for allocation by the board to other institutions or both;
- sums appropriated for state scholarships or other state-level student financial aid programs;
- sums destined for higher education but **designated to some other state agency** (as in the case of funds intended for faculty fringe benefits that are appropriated to the state treasurer and disbursed by that office); and
- appropriations directed to private institutions of higher education at all levels.

Exclude:

- sums for capital outlays and debt service; and
- sums derived from federal sources, student fees, and auxiliary enterprises.

ALL state funding for higher education (even those sums that are appropriated to other state agencies) should be reported in this section. Please **DO NOT include** any ARRA funds in this section.

State Support for All Higher Education is calculated by adding state tax support, non-tax support, non-appropriated support, endowment earnings, portions of multi-year appropriations from previous years, and other state support and **SUBTRACTING** from that sum appropriations that you expect will have to be returned to the state and appropriations in the current year for use in other years (in other words, any appropriated funds that are not usable in the fiscal year in which they are appropriated).

Data elements collected in this section:

1. Appropriations from state government taxes to institutions for operations and other higher education activities.
2. Funding under state auspices for appropriated non-tax state support set aside by the state for higher education. These may include, but are not limited to, monies from lotteries (including lottery scholarships), tobacco settlement, or casinos, or other gaming sources.
3. Funding under state auspices for non-appropriated state support. These may include, but are not limited to, monies from receipt of lease income, cattle-grazing rights fees, and oil/mineral extraction fees on land set aside by the state for higher education.
4. Interest or earnings received from state funded endowments set aside and pledged to public sector institutions.
5. Portions of multi-year appropriations from previous years.
6. Any other state funds not included above. Please explain in the comments box below.
7. Appropriations you expect will have to be returned to the state.
8. Portions of multi-year appropriations in the current year which are to be spread over other years.

Page 2:

Adjustments to State Support for Higher Education

In this section, you are asked to identify sums of state support that do not fund directly or through student assistance the degree credit instruction, research, or services of public higher education. Any funds you report in this section should be included in your State Support for Higher Education figure from Page 1. The sums reported in this section will be subtracted from State Support for Higher Education to calculate State Support for **Public** Higher Education.

Data elements collected in this section:

1. State funding for students in continuing or adult education courses (non-credit) and non-credit extension courses which are not part of a regular program leading to a degree or certificate.
2. Sums to independent (private) institutions for operating expenses.
3. Allocation of state appropriations for student financial aid grants awarded to students attending state independent (private) institutions. Include dollars intended solely for students attending independent institutions and the independent sector's portion of state aid programs. Estimate if needed.
4. Allocation of appropriations for student financial aid grants awarded to students attending out-of-state institutions (estimate if needed).

Additional Funding Sources

The sums collected in this section are for informational purposes only. None of the sums reported in this section should be included in the sums reported in any of the previous sections.

Data elements collected in this section:

1. State appropriated funds derived from federal sources.
2. Tuition charges collected by the institutions and remitted to the state as an offset to the state appropriations.
3. Sums to independent (private) institutions for capital outlay (new construction and debt service/retirement).

Page 3:

Local Appropriations

Appropriations should reflect your best estimate, at the time of reporting, of amounts actually provided to institutions and expected to be provided during the fiscal year. For analytical purposes, we will assume that local appropriations support two-year institutions, please note in the comments section if local appropriations support four-year or research institutions.

Data elements collected in this section:

- | |
|--|
| 1. Local Appropriations: From local government taxes to institutions for operating expenses. |
|--|

Research-Agriculture-Medical (RAM) Appropriations to Public Institutions of Higher Education

As a component of total state and local appropriations, report collectively the appropriations intended for the direct operations of research, agriculture and health care public services, and medical schools. Exclude the indirect costs.

Do not include discretionary use by faculty of unrestricted appropriations supplemented by other revenues for short-term research primarily performed as an adjunct component of instruction (departmental research of an unsponsored nature).

When unknown, appropriations for sponsored research should be estimated equal to total research expenditures less state grants and contracts for research and federal and private revenues restricted for research. Assume no tuition revenues are used for research.

These funds **SHOULD** be included in your State Support for All Higher Education figures.

Data elements collected in this section:

- | |
|--|
| <ol style="list-style-type: none">1. Appropriated sums for research centers, laboratories, and institutes, and appropriated sums separately budgeted by institutions for organized research. Generally, these are ongoing programs. Include all health and science research.2. Appropriated sums for agricultural experiment stations and cooperative extension services.3. Appropriated sums for teaching or affiliated hospital operations and public service patient care. Include all medical, dental, veterinary, optometry, pharmacy, mental health, nursing, and other health science institutes, clinics, laboratories, dispensaries, etc. primarily serving the public.4. Appropriated sums for the direct operation and administrative support of the four major types of medical schools (medicine, dentistry, veterinary medicine, and osteopathic medicine) and centers corresponding to the medical enrollments reported on Page 4. |
|--|

Public Institution Tuition Revenue

In this section, you are asked to supply information about tuition revenues. One of the intents of this section is to calculate "Net Tuition Revenue," which is used in the SHEF report as a measure of how much revenue institutions have to spend that is paid by students. "Net Tuition Revenue" is "Gross Tuition and Fees" less state funded student aid, institutional discounts and waivers, and tuition revenue paid by medical students.

Data elements collected in this section:

1. Gross Tuition plus Mandatory "Education and General" Fees (public institutions).
2. Tuition and Fees waived or discounted by public institutions (If you enter "0," please provide additional information in the comments box explaining why it is "0" for your state). (Will be subtracted.)
3. State appropriated student aid for Tuition and Mandatory Fees for public institutions. (Will be subtracted.)
4. Tuition and Mandatory Fees paid by public Medical Students. (Will be subtracted.)
5. Public institution tuition and fees used for capital debt service/retirement and capital improvement other than that paid by user students for auxiliary enterprise debt service.

Page 4:

Annual FTE at Public Institutions

To calculate annual FTE, determine the total number of degree credit hours* (including summer sessions) and apply the following conversion factors:

- 30 semester or 45 quarter undergraduate credit hours/year = 1 annual FTE student
- 24 semester or 36 quarter graduate credit hours/year = 1 annual FTE student

These conversion factors are based on 15 undergraduate and 12 graduate credit hours per semester or quarter.

To calculate annual FTE for non-degree credit* vocational-technical, remedial and other program enrollments at two-year community colleges and state approved area vocational-technical institutes in courses which result in some form of certificate or other formal recognition, determine the total yearly number of contact hours and apply the following conversion factor:

- 900 contact hours/year = 1 annual FTE student

This conversion factor is based on a normal load of 25 contact hours per week for 36 weeks.

* Credits counted in the FTE calculation, for purposes of SHEF, include credits that are state funded and could potentially lead to a degree.

Data elements collected in this section:

1. FTE calculated from course work creditable for a degree (including all health science and medical school enrollment) plus course work in a vocational or technical program normally terminal and results in a certificate or some other formal recognition.
2. Enrollment in schools of medicine, dentistry, veterinary medicine, and osteopathic medicine (hereafter referred to as medical schools).

Page 5:

This page is a verification page. These are the figures you will see in the SHEF report and are presented in adjusted and unadjusted formats. Please review for accuracy.

Page 6:

On this page, you are asked to break certain data elements down by sector. Please complete this section to the best of your ability.



SHEEO

State Higher Education Executive Officers
3035 Center Green Drive, Suite 100, Boulder, Colorado, 80301
(303) 541-1600
www.sheeo.org